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UNITED STATES DISTRICT COURT  
 NORTHERN DISTRICT OF CALIFORNIA

ECOLOGICAL RIGHTS FOUNDATION, a  
 non-profit corporation, and HUMBOLDT  
 BAYKEEPER, a non-profit association,

Plaintiffs,

v.

FEDERAL EMERGENCY MANAGEMENT  
 AGENCY, an agency of the Department of  
 Homeland Security,

Defendant.

Civil Case No.

**COMPLAINT FOR DECLARATORY  
 AND INJUNCTIVE RELIEF**

**(Endangered Species Act, 16 U.S.C. §§  
 1531, *et seq.*)**

1 ECOLOGICAL RIGHTS FOUNDATION (“EcoRights”) and HUMBOLDT  
 2 BAYKEEPER (“Baykeeper”) (collectively “Plaintiffs”) allege as follows:

### 3 INTRODUCTION

4 1. Plaintiffs bring this action for declaratory and injunctive relief to challenge the decision  
 5 by Defendant Federal Emergency Management Agency (“FEMA”) finding that the  
 6 implementation of the National Flood Insurance Program (“NFIP”) has “no effect” on any  
 7 species listed as endangered or threatened under the Endangered Species Act (“ESA”). FEMA  
 8 violated the ESA by issuing a “no effect” determination in a Biological Evaluation (“BE”)  
 9 published November 23, 2016 that assessed the impacts of the NFIP on ESA-listed species. To  
 10 the contrary, FEMA’s implementation of the NFIP “may effect” species listed as threatened and  
 11 endangered under the ESA. The bar to determine whether an action “may affect” a listed species  
 12 is low: “Any possible effect, whether beneficial, benign, adverse, or of an undetermined  
 13 character, triggers the formal consultation requirement.” 51 Fed. Reg. 19,926, 19,949 (June 3,  
 14 1986). Through the NFIP, FEMA facilitates, influences, and even promotes and encourages  
 15 human development in floodplains. In Monterey County, Santa Cruz County, and Humboldt  
 16 County, and elsewhere in the country, this development impairs habitat functions essential to the  
 17 continued survival and recovery of imperiled species listed as threatened and endangered under  
 18 the Endangered Species Act (“ESA”), 16 U.S.C. §§ 1531-1544. Accordingly, FEMA has acted in  
 19 a manner that is arbitrary, capricious, an abuse of discretion, and contrary to law in determining  
 20 that the NFIP will have “no effect” on any ESA listed species. FEMA’s “no effect”  
 21 determination must be reversed, set aside and remanded as being arbitrary, capricious, an abuse  
 22 of discretion, and contrary to law.

23 2. Plaintiffs have filed related lawsuits in the Northern District of California, *Ecological*  
 24 *Rights Foundation v. FEMA* (Case No. 16-cv-06987-JD) and *Ecological Rights Foundation, et*  
 25 *al. v. FEMA* (Case No. 16-cv-0722-JD).

26 a. In Case No. 16-cv-06987-JD, EcoRights alleges:

27 i. FEMA has violated the procedural requirements of the ESA and its  
 28 implementing regulations by its failure to initiate and complete consultation with National

Marine Fisheries Service (“NMFS”) and U.S. Fish and Wildlife Service (“FWS”) to ensure that its ongoing administration of the NFIP, an action that may affect listed species in Monterey County and Santa Cruz County, does not jeopardize such federally protected species or destroy or adversely modify designated critical habitat;

ii. FEMA has violated its substantive ESA section 7(a)(2) duties by implementing the NFIP in Monterey County in a fashion that is facilitating the adverse modification of critical habitat of species listed as endangered or threatened in Monterey County and Santa Cruz County and thereby jeopardizing the continued existence of these federally listed species; and

iii. FEMA has violated the requirements of the ESA section 7(a)(1) by failing to develop and carry out programs for the conservation of federally listed species in Monterey County and Santa Cruz County.

b. In Case No. 16-cv-07252-JD, Plaintiffs allege:

i. FEMA has violated the procedural requirements of the ESA and its implementing regulations by its failure to initiate and complete consultation with NMFS and FWS to ensure that its ongoing administration of the NFIP, an action that may affect listed species in Humboldt County, does not jeopardize such federally protected species or destroy or adversely modify designated critical habitat;

ii. FEMA has violated its substantive ESA section 7(a)(2) duties by implementing the NFIP in Monterey County in a fashion that is facilitating the adverse modification of critical habitat of species listed as endangered or threatened in Humboldt County and thereby jeopardizing the continued existence of these federally listed species; and

iii. FEMA has violated the requirements of the ESA section 7(a)(1) by failing to develop and carry out programs for the conservation of federally listed species in Humboldt County.

### **JURISDICTION**

3. This Court has jurisdiction over the claims set forth in this Complaint pursuant to 28 U.S.C. § 1331 (civil action arising under the laws of the United States), 28 U.S.C. § 2201

(declaratory relief), 28 U.S.C § 2202 (injunctive relief), and 16 U.S.C. § 1540(g)(1) (ESA citizen suit).

4. This Court has subject matter jurisdiction over violations of the ESA by FEMA pursuant to 16 U.S.C. § 1540(g)(1), which authorizes citizens to bring suit to enjoin any person that is in violation of the ESA.

5. Plaintiffs' claims arise under the ESA and its implementing regulations.

6. Plaintiffs bring this action pursuant to the ESA's citizen suit provisions. 16 U.S.C. § 1540(g).

7. Plaintiffs provided notice of intent to file suit under the ESA for the violations now alleged in this complaint on or about March 9, 2017, more than 60 days prior to filing this litigation.

8. This Court has personal jurisdiction over FEMA and its officials because FEMA is an agency of the federal government operating within the United States. The regional office of FEMA is located in the City of Oakland, Alameda County.

9. Plaintiffs and their members visit Monterey County, Santa Cruz County, and Humboldt County floodplains for wildlife viewing, scientific observation, educational study, aesthetic enjoyment, spiritual contemplation, and recreation, including kayaking, fishing, and photography.

10. Plaintiffs and their members are aggrieved by FEMA's lack of ESA consultation concerning the numerous ongoing adverse impacts that the NFIP is causing to federally listed species and their critical habitat.

11. FEMA's lack of ESA section 7 consultation on federally listed species has caused and will in the future continue to cause an impairment of the state of the ecosystem in Monterey County, Santa Cruz County and Humboldt County, and as a result, Plaintiffs' and their members' use of the area is impaired and diminished.

#### **VENUE**

12. Venue in the United States District for the Northern District of California is proper under 28 U.S.C. § 1391(e) because a substantial part of the events or omissions giving rise to this

1 claim occurred in this district, the Plaintiff EcoRights resides in this district, the Plaintiff  
2 Baykeeper resides in this district, and the Defendant maintains an office in Oakland, California.

3 **INTRADISTRICT ASSIGNMENT**

4 13. Intradistrict assignment of this matter to the San Francisco Division of the Court is  
5 appropriate pursuant to Civil Local Rule 3-2(d) because EcoRights' principal counsel resides in  
6 San Francisco County, EcoRights' principal place of business is located in Garberville,  
7 California, and the U.S. Attorney, who will serve as FEMA's counsel in this matter maintains an  
8 office in the Federal Building in San Francisco County.

9 **THE PARTIES**

10 14. Plaintiff ECOLOGICAL RIGHTS FOUNDATION is a non-profit, public benefit  
11 corporation, organized under the laws of the State of California, devoted to furthering the rights  
12 of all people to a clean, healthful and biologically diverse environment. To further its  
13 environmental advocacy goals, EcoRights actively seeks federal and state agency  
14 implementation of state and federal wildlife related laws, and as necessary, directly initiates  
15 enforcement actions on behalf of itself and its members.

16 15. Plaintiff HUMBOLDT BAYKEEPER is an unincorporated association dedicated to  
17 conserving and protecting terrestrial, aquatic, and marine ecosystems in northern California and  
18 southern Oregon. Humboldt Baykeeper safeguards Humboldt Bay, its tributaries, the Pacific  
19 Coast, and the Eel River estuary through community education, water quality monitoring,  
20 pollution control, and on-the-water patrols. In furtherance of its mission, Humboldt Baykeeper  
21 initiates enforcement actions of federal and state laws when necessary to fight pollution and  
22 protect wildlife.

23 16. Defendant, FEMA, an agency of the Department of Homeland Security, is the agency  
24 of the United States Government responsible for administering and implementing the NFIP.  
25 Region IX of FEMA, which oversees the implementation of the NFIP in California, is  
26 headquartered in Oakland, California.

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## STATUTORY BACKGROUND

### The Endangered Species Act

17. Congress enacted the Endangered Species Act in 1973 to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved” and “to provide a program for the conservation of such . . . species.” 16 U.S.C. § 1531(b). The ESA is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 180 (1978).

18. To accomplish this purpose, the ESA includes both substantive and procedural provisions that are designed to protect and recover imperiled species. To meet these obligations, “endangered species [have] priority over the ‘primary missions’ of federal agencies.” *Id.* at 185.

19. ESA section 7(a)(2) requires federal agencies to,

“in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined . . . to be critical.”

*Id.* § 1536(a)(2).

20. ESA section 7 establishes an interagency consultation process to assist federal agencies in complying with their duty to ensure against jeopardy to listed species or destruction or adverse modification of critical habitat.

21. To accomplish these goals, “[e]ach Federal agency shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat. If such a determination is made, formal consultation is required.” 50 C.F.R. § 402.14(a).

22. The ESA’s implementing regulations define agency action broadly, encompassing “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States.” *Id.* § 402.02. This includes, for instance, “the promulgation of regulations” and “actions directly or indirectly causing modifications to the land, water, or air.” *Id.*

23. “Agency actions” are construed broadly. *E.g.*, *Pacific Rivers Council v. Thomas*, 30 F.3d 1050, 1054–55 (9th Cir. 1985); *see also Nat’l Wildlife Fed’n v. Fed. Emergency Mgmt. Agency* (“*NWF*”), 345 F. Supp. 2d 1151 (W.D. Wash. 2004). This includes, for instance, “the promulgation of regulations” and “actions directly or indirectly causing modifications to the land, water, or air.” 50 C.F.R. § 402.02.

24. Courts have held that implementation of the NFIP is a discretionary agency action that requires FEMA to consult with agencies such as NMFS and FWS. *See, e.g.*, *NWF*, 345 F. Supp. 2d at 1173; *Fla. Key Deer v. Paulson*, 522 F.3d 1133, 1144 (11th Cir. 2008).

25. The threshold for when a proposed agency action “may affect” a listed species or critical habitat is low. “Any possible effect, whether beneficial, benign, adverse, or of an undetermined character, triggers the formal consultation requirement.” 51 Fed. Reg. 19,926, 19,949 (June 3, 1986).

26. An agency must initiate consultation under section 7 with either NMFS (in the case of marine or anadromous species) or the FWS (for all other species) whenever it takes an action that “may affect” a listed species. 50 C.F.R. § 402.14(a); *see generally*, 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.02, 402.10-402.16. Consultation begins with a conference with the NMFS or FWS concerning any proposed species or proposed critical habitat. 50 C.F.R. § 402.10. Informal consultation is an optional process to determine whether formal consultation is required. *Id.* § 402.13. If the agency and NMFS or FWS determine that an action may affect listed species or critical habitat, formal consultation is required. *Id.* § 402.14. Formal consultation concludes with a biological opinion providing “the Service’s opinion on whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat” and any reasonable and prudent alternatives to the action. *Id.* § 402.14(h)(3).

27. After initiating section 7 consultation but prior to the conclusion of the process, an agency may not make any “irreversible or irretrievable commitment of resources with respect to agency action which has the effect of foreclosing the formulation or implementation of any

1 reasonable and prudent alternative measures which would not violate” the ESA. 16 U.S.C.  
2 § 1536(d).

3 28. ESA section 7(a)(2) further imposes a substantive duty on federal agencies to ensure  
4 that any action authorized, funded, or carried out by such agency (*i.e.*, “agency action”) is not  
5 likely to jeopardize the continued existence of any endangered species or threatened species or  
6 result in the destruction or adverse modification of habitat of such species. 16 U.S.C. §  
7 1536(a)(2).

8 29. Separately, ESA section 7(a)(1) obligates federal agencies to “utilize their authorities in  
9 furtherance of the purposes of this chapter by carrying out programs for the conservation of  
10 endangered species and threatened species listed” under the Act. 16 U.S.C. § 1536(a)(1). Like  
11 the duty to avoid jeopardy, the conservation duty is discharged in consultation with FWS or  
12 NMFS. *Id.*

### 13 **The National Flood Insurance Program**

14 30. Congress established NFIP with the passage of the National Flood Insurance Act, 42  
15 U.S.C. sections 4001-4131. The program, which Congress authorized FEMA to administer, *id.*  
16 section 4011, allows property owners in flood-prone areas to acquire flood insurance without  
17 incurring prohibitive costs, *id.* section 4001; *see also* 44 C.F.R. § 59.2(a).

18 31. The NFIP was subsequently broadened and modified with the passage of the Flood  
19 Disaster Protection Act of 1973, and amended again in 1994 with the National Flood Insurance  
20 Reform Act.

21 32. The NFIP is a federal program administered and implemented by FEMA that, among  
22 other things, enables private property owners to purchase federal flood insurance. The NFIP is  
23 designed to provide an insurance alternative to disaster assistance to meet the escalating costs of  
24 repairing damage to buildings and their contents caused by floods, as private flood insurance was  
25 generally unavailable from the private-sector insurance companies for property located in flood  
26 prone areas. 44 C.F.R. § 59.2(a).

27 33. Under the NFIP, local communities become eligible for federal flood insurance once  
28 they have adopted “adequate land use and control measures” consistent with criteria developed



1 by FEMA. 42 U.S.C. § 4012(c)(2); 44 C.F.R. § 59.22 (prerequisites for the sale of flood  
2 insurance).

3 34. Property owners are eligible for federal flood insurance only in communities enrolled in  
4 the NFIP. *Id.*

5 35. FEMA develops, and from time to time is required to revise, “comprehensive criteria”  
6 designed to encourage the adoption of land use measures that reduce the amount of development  
7 exposed to floods, assist in reducing damage caused by floods, and “otherwise improve the long  
8 range land management and use of flood-prone areas.” 42 U.S.C. § 4102(c).

9 36. FEMA’s minimum criteria for local floodplain management are encoded in federal  
10 regulations at 44 C.F.R. § 60.3.

11 37. Although the statute authorizes FEMA to adopt regulations for the general protection of  
12 the floodplain, the existing regulations are primarily designed to minimize damage to structures  
13 and water systems during flood events, and eliminate the possibility that structures will  
14 exacerbate floods by increasing flood levels. *Id.*; FEMA, National Flood Insurance Program:  
15 Program Description at 2 (Aug. 1, 2002) (“Program Description”) (“The emphasis on floodplain  
16 management requirements is directed toward reducing threats to lives and the potential for  
17 damages to property in flood-prone areas.”). The criteria are not designed or intended to protect  
18 aquatic habitat, imperiled species, or other environmental values.

19 38. FEMA oversees communities’ participation in and eligibility for the NFIP in an  
20 ongoing manner. “FEMA monitors communities to ensure that they have adopted an ordinance  
21 that meets or exceeds the minimum NFIP floodplain management criteria and to ensure that they  
22 are effectively enforcing their ordinance.” Program Description at 12.

23 39. FEMA conducts community visits and contacts to ensure proper implementation of  
24 NFIP requirements. *Id.*

25 40. A community’s failure to implement and enforce NFIP minimums can result in  
26 probation or suspension from the program, which would make federal flood insurance  
27 unavailable in that community. 44 C.F.R. § 59.24. To monitor compliance, FEMA conducts  
28 community visits to perform comprehensive assessments of local programs and provide technical

1 assistance to local officials. These community visits enable FEMA to ensure compliance with  
2 land-use regulations to the minimum criteria standard. *Id.*

3 41. FEMA implements a Community Rating System (CRS), a separate, voluntary program  
4 to encourage local floodplain management regulation that exceeds the regulatory minimums.  
5 Under the CRS, floodplain management regulation above NFIP minimums is rewarded with  
6 lower insurance rates for insureds. *See* 55 Fed. Reg. 28,291 (July 10, 1990); Program Description  
7 at 22 (noting that one goal of CRS is to “protect natural and beneficial floodplain functions”).

8 42. FEMA further implements the NFIP through development and revision of maps and  
9 other information that identify flood-prone areas. 42 U.S.C. § 4101. These maps, known as Flood  
10 Insurance Rate Maps (“FIRMs”), identify various categories of flood hazard areas in which land  
11 use and building criteria are to apply. *See* 44 C.F.R. § 64.3 (identifying different zones on  
12 FIRMs). The maps are required to be reviewed at least once every five years to assess the need to  
13 update the maps to accommodate new information. 42 U.S.C. § 4101(e).

14 43. Individuals can request and obtain from FEMA a Letter of Map Change (“LOMC”) if  
15 they can show an inaccuracy or change in the map that affects the status of their property, which  
16 are “documents issued by FEMA that revise or amend the flood hazard information shown on the  
17 FIRM without requiring the FIRM to be physically revised and re-published.” FEMA Website,  
18 <https://www.fema.gov/letter-map-changes>.

19 44. FEMA can issue a range of different types of LOMCs, including, but not limited to, a  
20 Conditional Letter of Map Revision (“CLOMR”), a Conditional Letter of Map Revision Based  
21 on Fill (“CLOMR-F”), a Letter of Map Revision (“LOMR”), a Letter of Map Revision Based on  
22 Fill (“LOMR-F”), a Letter of Map Amendment (“LOMA”), and a Conditional Letter of Map  
23 Amendment (“CLOMA”).

24 45. A LOMA is an official amendment, by letter, to an effective NFIP map. A LOMA  
25 establishes a property's location in relation to the Special Flood Hazard Area (“SFHA”). LOMAs  
26 are usually issued because a property has been inadvertently mapped as being in the floodplain,  
27 but is actually on natural high ground above the base flood elevation. FEMA Website,  
28 <http://www.fema.gov/letter-map-amendment-loma>.

1       46. A CLOMA “is FEMA's comment on a proposed structure or group of structures that  
2 would, upon construction, be located on existing natural ground above the base (1-percent-  
3 annual-chance) flood elevation on a portion of a legally defined parcel of land that is partially  
4 inundated by the base flood.” 44 C.F.R. §72.2.

5       47. A LOMR is FEMA's modification to an effective FIRM or Flood Boundary and  
6 Floodway Map (“FBFM”) or both. LOMRs are generally based on the implementation of  
7 physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and  
8 thus result in the modification of the existing regulatory floodway, the effective base flood  
9 elevations, or the SFHA. The LOMR officially revises the FIRM or FBFM, and sometimes the  
10 Flood Insurance Study (“FIS”) report, and, when appropriate, includes a description of the  
11 modifications. The LOMR is generally accompanied by an annotated copy of the affected  
12 portions of the FIRM, FBFM, or FIS report. *Id.*

13       48. The “regulatory floodway” is the channel of a river or other watercourse and the  
14 adjacent land areas that must be reserved in order to discharge the base flood without  
15 cumulatively increasing the water surface elevation more than a designated height. 44 C.F.R. §  
16 59.1. Development in floodways is generally forbidden.

17       49. A LOMR-F “is FEMA's modification of the SFHA shown on the FIRM based on the  
18 placement of fill outside the existing regulatory floodway.” 44 C.F.R. § 72.2.

19       50. A CLOMR “is FEMA's comment on a proposed project that would, upon construction,  
20 affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the  
21 modification of the existing regulatory floodway, the effective base flood elevations, or the  
22 SFHA.” *Id.*

23       51. A CLOMR-F “is FEMA’s comment on a proposed project that would, upon  
24 construction, result in a modification of the SFHA through the placement of fill outside the  
25 existing regulatory floodway.” *Id.*

26       52. Participation by a community in the NFIP is, technically, voluntary. However, as a  
27 practical matter, failure to enroll in the NFIP can significantly affect current and future property  
28 owners in the community’s floodplains and the availability of federal financial assistance in the

1 flood-prone areas of the community. For example, if a community chooses not to participate in  
2 the NFIP, various types of federal assistance, such as mortgages from a federally insured or  
3 regulated bank and Veterans Administration loans, are prohibited if the building used to secure  
4 the assistance is in the 100-year floodplain. 42 U.S.C. § 4012a.

5 53. The National Flood Insurance Act also prohibits other federal agencies such as the  
6 Federal Housing Administration and the Small Business Administration from making or  
7 guaranteeing a loan secured by a building in a floodplain unless the flood insurance has been  
8 purchased. *Id.* Federal flood insurance cannot be purchased for buildings in non-participating  
9 communities. *Id.* §§ 4202, 4106.

10 54. As a result of the NFIP and its requirements described herein, virtually all communities  
11 in the United States that have floodplains within their boundaries have elected to participate in  
12 the NFIP.

13 55. In addition, FEMA administers the Public Assistance Program, Individual and  
14 Households Program, and Hazard Mitigation Grant Program (collectively "Disaster  
15 Preparedness, Mitigation, and Recovery Programs"), which are interrelated in purpose and effect  
16 to the National Flood Insurance Program. These programs are administered pursuant to the  
17 Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (42 U.S.C. §§ 5121-  
18 5206 ("Stafford Act")). Under the Stafford Act, FEMA may provide funds to repair, restore, or  
19 replace disaster-damaged public facilities and facilities owned by certain private nonprofit  
20 organizations. Eligible facilities include roads and associated features, such as lighting, curbs,  
21 and sidewalks; bridges, culverts, and associated features, such as abutments, headwalls, and  
22 erosion protection, water control facilities, such as embankments, retention basins, and canals;  
23 buildings and equipment; utilities, such as water and sewer lines and electrical distribution  
24 facilities; mass transit facilities; and parks and recreational facilities. Often, the entity applying  
25 for assistance takes advantage of the opportunity presented by the need to repair a disaster  
26 damaged facility to make improvements to, or change the design of, the facility. FEMA also  
27 provides funding under these programs for the expansion or construction of other selected  
28 facilities, the purchase of capital equipment, or the funding of hazard mitigation measures. The

Stafford Act and other legislation authorize FEMA to provide hazard mitigation assistance by providing funding for activities that reduce or eliminate public safety and property damage risks from future events or disasters. FEMA may provide funds for mitigation activities applied to a specific facility—such as elevating a floodprone building above flood elevation—or reducing risks to a community through measures such as vegetation management to reduce the risk of loss or damage associated with wildfire events. FEMA may also provide funds for the relocation or acquisition of facilities located in areas of hazard, such as floodplains, where repetitive damage is likely to occur.

56. Courts have consistently held that NFIP implementation is an agency action that requires section 7 consultation because it may affect listed species. *NWF*, 345 F. Supp. 2d at 1174 (“FEMA’s implementation of the NFIP . . . is a discretionary “agency action” for the purposes of Section 7(a)(2) of the ESA”); *Florida Key Deer*, 522 F. 3d 1133 (affirming that FEMA and the FWS failed to comply with section 7 of the ESA, with regard to FEMA’s administration of NFIP in the Florida Keys); *Coalition for a Sustainable Delta v. FEMA* (“*Delta*”), 812 F. Supp. 2d 1089, 1121-24; 1125-26 (E.D. Cal. 2011) (FEMA’s ability to shape the floodplain through map revision approvals evidenced FEMA’s ongoing implementation discretion, thus constituting affirmative agency action under the ESA).

57. In a July 12, 2012 letter to FEMA regarding its intent to prepare an Environmental Impact Statement for the NFIP, NMFS reiterated the point that ESA 7 consultation via FEMA is required when a NFIP map change “may affect, either directly or indirectly, ESA listed species or critical habitat.” Furthermore, it admonished that FEMA’s guidance on the matter is “problematic as it incorrectly directs non-federal entities to consult with the federal services directly,” resulting in difficulties for NMFS and FEMA, and delays for requestors. NMFS further admonished that FEMA’s guidance should be changed to reflect the interagency consultation requirements of the ESA.<sup>1</sup>

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<sup>1</sup> Similarly, in a December 14, 2015 electronic mail communication, NMFS staff agreed that issuance of a FEMA NFIP determination known as “a CLOMR-F” (which is explained in

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2 58. Specific NFIP activities that require ESA section 7 consultation include (note:  
3 hereinafter, references to “the NFIP” include, *inter alia*, all of the below FEMA activities):

- 4 • FIRM Changes. *Delta*, , 812 F. Supp. 2d at 1123, 1132. (“although FEMA's  
5 individual mapping actions are taken in response to the actions of third parties,  
6 each such mapping action is an ‘affirmative action’ that collectively has the  
7 potential to encourage third parties to fill and/or build levees in the Delta  
8 floodplain.”); *NWF*, 345 F. Supp. 2d at 1173 (“As a result of FEMA’s discretion  
9 in its mapping activities, FEMA must consult on its mapping regulations and its  
10 revisions of flood maps.”);
- 11 • Minimum Eligibility Criteria. *NWF*, 345 F. Supp. 2d at 1174 (“FEMA must  
12 consult on its minimum eligibility criteria because FEMA has discretion to amend  
13 its regulations and because those regulations have an ongoing impact on the use  
14 of floodplains.”);
- 15 • Community Rating System. *Id.* (“by offering discounts to communities that adopt  
16 certain types of regulations, FEMA could encourage the adoption of salmon-  
17 friendly measures in local communities. For these reasons, formal consultation is  
18 required.”)

19 59. FEMA has broad discretion to implement the NFIP “in a manner consistent with  
20 national environmental priorities.” 44 C.F.R. § 10.4(a); *see also* Exec. Order No. 11988 (May 24,  
21 1977) (requiring federal agencies to “restore and preserve the natural and beneficial values  
22 services by floodplains in carrying out [their] responsibilities”). The National Flood Insurance  
23 Act itself requires FEMA to “consult with other departments and agencies . . . in order to assure  
24 that the programs of such agencies and the flood insurance program . . . are mutually consistent.”  
25 42 U.S.C. § 4024.

26 //

27 paragraph 18 below) “is a federal action and FEMA must consult with us [under ESA section 7]  
28 on that action.”

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3 //

#### **FACTUAL BACKGROUND**

##### **Species and Habitat in Monterey County, Santa Cruz County, and Humboldt County**

60. Species listed as endangered or threatened under the ESA are present in Monterey County, including the tidewater goby (*Eucyclogobius newberryi*), South-Central California Coast Steelhead (“SCCC Steelhead”), western snowy plover (“WSP”) (*Charadrius nivosus nivosus*, formerly *C. alexandrinus nivosus*), Yadon’s piperia (*Piperia yadonii*), purple amole (*Chlorogalum purpureum* var. *purpureum*), the central population of the California tiger salamander (“CTS”) (*Ambystoma californiense*), the California red-legged frog (“CRLF”) (*Rana draytonii*), vernal pool fairy shrimp (“VPFS”) (*Branchinecta lynchi*), and the Monterey spineflower (*Chorizanthe pungens* var. *pungens*) (collectively, “the Monterey Listed Species”). Monterey County furthermore contains critical habitat for ESA-listed species designated by NMFS or FWS. Each of these species, designated critical habitats for ESA-protected species, and areas where these species otherwise reside is listed in the FWS IPaC Trust Resources Report for Monterey County, available at <http://ecos.fws.gov/ipac>.

61. Species listed as endangered or threatened under the ESA are present in Santa Cruz County, including the tidewater goby, Central California Coast Steelhead (“CCC Steelhead”), SCCC Steelhead, Central California Coast coho salmon (“CCC Coho”), Marbled murrelet (*Brachyramphus marmoratus*), WSP, the Santa Cruz Long-toed salamander (“SCLTS”) (*Ambystoma macrodactylum croceum*), CRLF, and the Monterey spineflower (*Chorizanthe pungens* var. *pungens*) (collectively, “the Santa Cruz Listed Species”). Santa Cruz County furthermore contains critical habitat for ESA-listed species designated by NMFS or FWS. Each of these species, designated critical habitats for ESA-protected species, and areas where these species otherwise reside is listed in the FWS IPaC Trust Resources Report for Santa Cruz County, available at <http://ecos.fws.gov/ipac>.



62. Species listed as endangered or threatened under that ESA that are present in Humboldt County include Southern Oregon/Northern California Coast Evolutionary Significant Unit (“ESU”) of coho salmon (*Oncorhynchus kitsutch*), Northern California Distinct Population Segment (“DPS”) of steelhead (*Oncorhynchus mykiss*), Southern DPS of green sturgeon (*Acipenser medirostris*), Marbled murrelet, WSP, Humboldt Bay wallflower (*Erysimum menziesii*), tidewater goby, Beach layia (*Layia carnosa*), Western lily (*Lilium occidentale*), Northern spotted owl (*Strix occidentalis caurina*), Southern DPS of the Pacific eulachon (*Thaleichthys pacificus*), Kneeland Prairie penny-cress (*Thlaspi californicum*), Short-tailed albatross (*Phoebastria albatrus*) (collectively, “the Humboldt Listed Species”). Humboldt County furthermore contains critical habitat for ESA-listed species designated by NMFS or FWS. Each of these species, designated critical habitats for ESA-protected species, and areas where these species otherwise reside is listed in the FWS IPaC Trust Resources Report for Humboldt County, available at <http://ecos.fws.gov/ipac>.

63. The Monterey Listed Species, Santa Cruz Listed Species, and Humboldt Listed Species are referred to herein collectively as “Listed Species.”

#### **NFIP and Floodplain Development**

64. One of the major issues in floodplain management and flood protection is the question of how much encroachment of human development should be allowed into 100-year flood zones. The closer to rivers, streams and other waters that development is sited, the higher a barrier to floodwaters will be erected, as greater limitations on the horizontal expanse of a waterway will require a vertical increase in the water level to maintain a similar water volume cross-section. FEMA standards require that development encroachment cannot occur within an area that will impose a vertical increase of more than one foot, or increase water velocity to a level that will become hazardous. 44 C.F.R. §§ 60.3(c)(10), 64.3, 60.22. Otherwise, floodwaters will spill over into developed areas.

a. Accordingly, to participate in the NFIP, Monterey County has adopted ordinances that regulate construction in the 100-year flood plains to limit future flood damages.



b. Accordingly, to participate in the NFIP, Santa Cruz County has adopted ordinances that regulate construction in the 100-year flood plains to limit future flood damages.

c. Accordingly, to participate in the NFIP, Humboldt County has adopted ordinances that regulate construction in the 100-year flood plain to limit future flood damages.

65. Evidence demonstrates that the NFIP influences, encourages, incentivizes, or facilitates development in the floodplain. For example, research indicates that:

a. LOMC elements of the NFIP provide indirect incentives for filling floodplains.

b. The NFIP has varying direct and indirect impacts on the amount of development that occurs in the floodplain.

c. The availability of floodplain insurance encourages development in certain areas.

d. The NFIP generally reduces barriers to development, including by reducing economic risk.

66. Congress enacted the NFIP, in part, in response to the unavailability of private insurance for floodplain development. 42 U.S.C. § 4002(a)(2) ("The availability of Federal loans, grants, guarantees, insurance and other forms of financial assistance are often determining factors in the utilization of land and the location and construction of public and of private industrial, commercial, and residential facilities.").

67. Since loans and other financing for construction in floodplain areas is generally unavailable without flood insurance, FEMA's provision of flood insurance is a factor in development proceeds in floodplains. FEMA's implementation of the NFIP has the result of encouraging development in flood-prone areas, which include critical habitat for the Listed Species and are critically important to the protection and recovery of the Listed Species.

68. Evidence indicates that FEMA's NFIP may affect Listed Species in fashion that adversely impacts critical habitat and otherwise harms the species. There is not enough evidence to support a conclusion that the NFIP necessarily has no effect on Listed Species.

69. Urban development and other floodplain development is one of the primary causes of the decline of many of the Listed Species and remains a serious threat to their recoveries.

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**NFIP Implementation and Impacts in Monterey County, Santa Cruz County, and**

**Humboldt County**

70. With the incentives, facilitation, and encouragement that the NFIP provides, and that Monterey County, Santa Cruz County, and Humboldt County allow in accord with NFIP requirements, extensive floodplain development has occurred, continues to occur and will occur in the future within these counties. This floodplain development has had, and will continue to have, adverse impacts to the federally listed species and their critical habitat.

71. Implementation of the NFIP in Monterey County is a federal agency action that "may affect" the Monterey Listed Species. Moreover, NMFS and FWS have designated critical habitat in Monterey County for the Monterey Listed Species. Implementation of the NFIP "may affect" this designated critical habitat.

72. Implementation of the NFIP in Santa Cruz County is a federal agency action that "may affect" the Santa Cruz Listed Species. Moreover, NMFS and FWS have designated critical habitat in Santa Cruz County for the Santa Cruz Listed Species. Implementation of the NFIP "may affect" this designated critical habitat.

73. Implementation of the NFIP in Humboldt County is a federal agency action that "may affect" the Humboldt Listed Species. Moreover, NMFS and FWS have designated critical habitat in Humboldt County for the Humboldt Listed Species. Implementation of the NFIP "may affect" this designated critical habitat.

74. Floodplain development has adversely modified and will continue to adversely modify the Monterey Listed Species' critical habitat in Monterey County and will continue to jeopardize the Monterey Listed Species' survival and recovery. *See NWF*, 345 F. Supp. 2d at 1176 (noting "development is 'reasonably certain to occur' as a result of [NFIP implementation]"); *see also*

1 *Florida Key Deer*, 522 F.3d at 1144 ("FEMA has the authority in its administration of the NFIP  
2 to prevent the indirect effects of its issuance of flood insurance by, for example, tailoring the  
3 eligibility criteria that it develops to prevent jeopardy to listed species. Therefore, its  
4 administration of the NFIP is a relevant cause of jeopardy to listed species.").

5 75. Floodplain development has adversely modified and will continue to adversely modify  
6 the Santa Cruz Listed Species' critical habitat in Santa Cruz County and will continue to  
7 jeopardize the Santa Cruz Listed Species' survival and recovery. *See id.*

8 76. Floodplain development has adversely modified and will continue to adversely modify  
9 the Humboldt Listed Species' critical habitat in Humboldt County and will continue to jeopardize  
10 the Humboldt Listed Species' survival and recovery. *See id.*

11 77. Monterey County has adopted floodplain regulations in order to continue participation  
12 in the federal flood insurance program, as detailed further below. Flood zones within Monterey  
13 County containing designated critical habitat for threatened and/or endangered species or where  
14 threatened and/or endangered species otherwise reside include, but may not be limited to,  
15 tidelands, tidal waters, river/stream courses, wetlands, and/or flood plains within or adjacent to  
16 the following waters:

- 17 a. Pajaro River
- 18 b. Elkhorn/Bennet Sloughs/Moss Landing
- 19 c. Old Salinas River
- 20 d. Tembladero Slough
- 21 e. Gabilan Creek
- 22 f. Salinas River
- 23 g. Nacimiento River
- 24 h. San Antonio River
- 25 i. Arroyo Seco
- 26 j. Reliz Creek
- 27 k. Paloma Creek
- 28 l. Piney Creek

- m. Horse Creek
- n. Lhano Grande Canyon
- o. Lewis Creek
- p. San Lorenzo Creek
- q. Salinas River
- r. Seal Rock Creek
- s. Carmel River
- t. Potrero Creek
- u. Robertson Canyon Creek
- v. Las Garzas Creek
- w. Hitchcock Canyon Creek
- x. Tularcitos Creek
- y. Rana Creek
- z. Aqua Mojo Creek
- aa. San Clemente Creek
- bb. Pine Creek
- cc. Cachagua Creek
- dd. Borondo Creek
- ee. James Creek
- ff. Big Creek
- gg. Pinch Creek
- hh. Robertson Creek
- ii. San Carpofofo Creek
- jj. Dutra Creek
- kk. Big Sur River
- ll. Little Sur River
- mm. Bixby Creek
- nn. Malpaso Creek

1           oo. San Jose Creek

2           78. Additional locations within Monterey County containing designated critical habitat for  
3 threatened and/or endangered species or where threatened and/or endangered species otherwise  
4 reside include Monterey County coastal beach areas (Pajaro River Mouth to Monterey, Pfeiffer  
5 Beach to Andrew Molera State Park) and the Pacific Ocean and adjoining shorelines.

6           79. Plaintiffs have performed an analysis of the extent of overlaps between the one hundred  
7 year floodplain, or SFHA, and designated critical habitat for Monterey Listed Species in  
8 Monterey County. This analysis determined that extensive overlaps exist between designated  
9 critical habitat and the FEMA-designated SFHA in Monterey County, involving at least the nine  
10 Monterey Listed Species. Plaintiffs' analysis is summarized in the chart attached hereto as  
11 Attachment 19 and incorporated here by reference.

12           80. Both the areas described in Attachment 19 and list of waters/areas in paragraphs 77 and  
13 78 are nonexclusive lists. FEMA has in its possession maps and information concerning the  
14 exact location of all flood hazards it has considered and mapped within Monterey County. As  
15 detailed further below, FEMA has a duty to initiate ESA section 7 consultation as to the effect of  
16 its implementation of the NFIP in Monterey County on the listed species and critical habitat  
17 described by the FWS IPaC Report in the areas identified in paragraphs 60, 77, and 78 and in any  
18 other areas where FEMA has information identifying such areas as locations both inhabited by  
19 ESA-listed species and as being flood-prone areas affected by FEMA's NFIP administration.

20           81. Santa Cruz County has adopted floodplain regulations in order to continue participation  
21 in the federal flood insurance program, as detailed further below. Flood zones within Santa Cruz  
22 County containing designated critical habitat for threatened and/or endangered species or where  
23 threatened and/or endangered species otherwise reside include, but may not be limited to,  
24 tidelands, tidal waters, river/stream courses, wetlands, and/or flood plains within or adjacent to  
25 the following waters:

- 26           a. Aptos Creek  
27           b. Arana Gulch Creek  
28           c. Baldwin Creek

- d. Bean Creek
- e. Bear Creek
- f. Boulder Creek
- g. Branciforte Creek
- h. Browns Creek
- i. Carbonera Creek
- j. Casserly Creek
- k. Central Branch Arana Gulch Creek
- l. Corcoran Lagoon
- m. Corralitos Lagoon
- n. Corralitos Creek
- o. Green Valley Creek
- p. Hare Creek
- q. Kings Creek
- r. Laguna Creek
- s. Lompico Creek
- t. Majors Creek
- u. Mill Creek
- v. Molino Creek
- w. Newell Creek
- x. Pajaro River
- y. Peasley Gulch
- z. Salsipuedes Creek
- aa. San Lorenzo River
- bb. San Vicente Creek
- cc. Scott Creek
- dd. Seascape Pond
- ee. Soquel Creek

- ff. Two Bar Creek
- gg. Valencia Creek
- hh. Valencia Lagoon
- ii. Waddell Creek
- jj. Watsonville Slough (including all or portions of Gallighan, Hanson, Harkins, Watsonville, Struve, and the West Branch of Struve sloughs)
- kk. West Branch Soquel Creek
- ll. Wilder Creek
- mm. Zayante Creek

82. Additional locations within Santa Cruz County containing designated critical habitat for threatened and/or endangered species or where threatened and/or endangered species otherwise reside include Santa Cruz County coastal beach areas (including but not limited to Waddell Creek Beach, Scott Creek Beach, Wilder Creek Beach, and Jetty Road to Aptos and beaches near the Pajaro River Mouth west of Watsonville) and the Pacific Ocean and adjoining shorelines.

83. Plaintiffs have performed an analysis of the extent of overlaps between the one hundred year floodplain, or SFHA, and designated critical habitat for Santa Cruz Listed Species in Santa Cruz County. This analysis determined that extensive overlaps exist between designated critical habitat and the FEMA-designated SFHA in Santa Cruz County, involving at least the Santa Cruz Listed Species identified herein. Plaintiffs' analysis is summarized in the chart attached hereto as Attachment 20, and incorporated here by reference, as well as in paragraphs 97, 104, 115, 123, 141, 147, 175, 178, and 187.

84. Both the areas described in paragraph 83 and Attachment 20 and list of waters/areas in paragraph 81 and 82 are nonexclusive lists. FEMA has in its possession maps and information concerning the exact location of all flood hazards it has considered and mapped within Santa Cruz County. As detailed further below, FEMA has a duty to initiate ESA section 7 consultation as to the effect of its implementation of the NFIP in Santa Cruz County on the listed species and critical habitat described by the FWS IPaC Report in the areas identified in paragraph 61 and in any other areas where FEMA has information identifying such areas as locations both inhabited

1 by ESA-listed species and as being flood-prone areas affected by FEMA's NFIP administration.

2 85. Humboldt County has adopted floodplain regulations to continue participation in the  
3 NFIP. Eight of the species listed above have critical habitat within FIRM panels designed as  
4 special flood hazard zones. Flood zones within the County containing designated critical habitat  
5 for threatened and endangered species or where listed species otherwise reside include, but are  
6 not limited to tidelands, river and stream courses, wetlands, and/or floodplains within or adjacent  
7 to the following waters:

- 8 a. Arcata Bay
- 9 b. Bear Creek
- 10 c. Bear River
- 11 d. Big Lagoon
- 12 e. Blue Creek
- 13 f. Bull Creek
- 14 g. Chamise Creek
- 15 h. Dean Creek
- 16 i. Dobbyn Creek
- 17 j. Eel River
- 18 k. Elk River
- 19 l. Freshwater Creek
- 20 m. Freshwater Lagoon
- 21 n. Honeydew Creek
- 22 o. Humboldt Bay
- 23 p. Jacoby Creek
- 24 q. Klamath River
- 25 r. Larabee Creek
- 26 s. Lawrence Creek
- 27 t. Little River
- 28 u. Mad River (and its North Fork)



- v. Maple Creek
- w. Mattole Canyon
- x. Mattole River
- y. Redwood Creek
- z. Salmon Creek
- aa. Sproul Creek
- bb. Stone Lagoon
- cc. The East Branch of the South Fork
- dd. The Van Duzen River
- ee. Trinity River
- ff. White Widow Creek
- gg. Willow Creek
- hh. Yager Creek

86. The list in the preceding paragraph is not exclusive. For example, some listed species in Humboldt County count among their critical habitat all rivers and creeks therein, coastal beach areas, and the Pacific Ocean and adjoining shorelines.

87. Plaintiffs have performed an analysis of the extent of overlaps between the one hundred year floodplain, or SFHA, and designated critical habitat for Humboldt Listed Species in Humboldt County. This analysis determined that extensive overlaps exist between designated critical habitat and the FEMA-designated SFHA in Humboldt County. *See* Paragraphs 98, 131, 132, 135, 137, 142, 149, 153, 155, 163, 165, 167, and 169.

88. FEMA has in its possession maps and information concerning the exact location of all flood hazards considered and mapped within Humboldt County. Therefore, it is FEMA's duty to initiate consultation as to the Humboldt Listed Species and critical habitat described above.

#### **NFIP Adverse Impacts On Tidewater Goby**

89. The tidewater goby (*Eucyclogobius newberryi*) is a small fish that inhabits coastal brackish waters and requires for its survival and recovery properly functioning habitat, which includes healthy stream channels and adjoining wetlands, flood plains, and estuaries, some of

1 which lie within Special Flood Hazard Areas of Monterey County, Santa Cruz County, and  
2 Humboldt County.

3 90. The tidewater goby is listed as endangered. As FWS has found in its critical habitat  
4 determinations, “[c]oastal development projects that result in the loss or alteration of coastal  
5 wetland habitat,” “alterations of water flows upstream of coastal lagoons and estuaries that  
6 negatively impact the species’ breeding and foraging activities,” and “channelization of the  
7 rivers where the species occurs” are some of the key threats to the species. 78 Fed. Reg. 8745,  
8 8750 (Feb. 6, 2013). As the Tidewater Goby Recovery Plan states, “Coastal development  
9 projects that modify or destroy coastal brackish-water habitat are the major factor adversely  
10 affecting the tidewater goby.” Tidewater Goby Recovery Plan at 16 [available at:  
11 [https://ecos.fws.gov/docs/recovery\\_plan/051207.pdf](https://ecos.fws.gov/docs/recovery_plan/051207.pdf) (Dec. 7, 2006)]. Construction of manmade  
12 barriers along the coast destroys the tidewater goby’s sandbar habitat. Proposed Rules for  
13 Reclassifying Tidewater Goby, 79 Fed. Reg. 14153, 14344 (March 13, 2014). The formation of  
14 sandbars at the mouth of lagoons in Monterey County, Santa Cruz County and Humboldt County  
15 occurs in the late spring as freshwater flows into the lagoon decline and allow the ocean to build  
16 up the sandbar through wave action on the beach. *Id.* at 14344. Artificial breaching of sandbars  
17 reverses this freshening process and leads to stratified salinity conditions and warm, oxygen-poor  
18 bottom conditions that are unsuitable for the tidewater goby. *Id.* Tidewater gobies also depend  
19 upon calm backwaters as refuges against storm flows and/or draining of small lagoons when the  
20 sandbar is opened in winter. *Id.*

21 91. The tidewater goby also requires lagoons with adequate sediment for burrow  
22 construction and spawning. *Id.* Manmade barriers along the coast may decrease the amount of  
23 sediment that is carried over to lagoons and thus available for burrow construction and spawning.  
24 *Id.*

25 92. Manmade barriers also prevent migration of the tidewater goby to new colonies and  
26 habitats. *Id.* High freshwater flows into lagoons and estuaries typically carry tidewater gobies  
27 into the ocean and allow them to move up or down the coast with longshore currents and into  
28 adjacent lagoons. *Id.* at 14345. Artificial barriers interfere with this process and prevent the

1 species from reproducing, colonizing, and thriving. *Id.* Furthermore, isolation caused by  
2 manmade barriers harms the tidewater goby by preventing migration between populations,  
3 leading to low levels of genetic diversity that make populations vulnerable to extinction. *Id.*

4 93. FEMA's NFIP has incentivized and facilitated and continues to incentivize and  
5 facilitate development that directly and indirectly creates manmade barriers to the movement of  
6 tidewater gobies into areas of their traditional habitat and/or interferes with the natural  
7 movement of sand in a fashion that has adversely impacted the natural building and breaching of  
8 sandbar barriers at the mouths of Monterey County rivers inhabited by tidewater goby, including  
9 the placement of fill, the construction of buildings, roads, driveways, culverts, revetments, and  
10 structures to armor coastal shorefronts and river and stream banks such as retaining walls and  
11 seawalls.

12 94. FEMA's NFIP has incentivized and facilitated and continues to incentivize and  
13 facilitate development that directly and indirectly creates manmade barriers to the movement of  
14 tidewater gobies into areas of their traditional habitat and/or interferes with the natural  
15 movement of sand in a fashion that has adversely impacted the natural building and breaching of  
16 sandbar barriers at the mouths of Santa Cruz County rivers inhabited by tidewater goby,  
17 including the placement of fill, the construction of buildings, roads, driveways, culverts,  
18 revetments, and structures to armor coastal shorefronts and river and stream banks such as  
19 retaining walls and seawalls.

20 95. Degradation of water quality resulting from development also negatively impacts the  
21 tidewater goby's various aquatic habitats. *Id.* Many drainages to coastal lagoons are  
22 contaminated with polluted storm water runoff (chemicals and soil) from developed areas.  
23 Tidewater Goby Recovery Plan at 21. Floodplain development incentivized and facilitated by the  
24 NFIP is increasing the volume and contamination levels of storm water runoff into tidewater  
25 goby habitat.

26 96. Monterey County contains three designated critical habitat areas for listed tidewater  
27 goby that are being degraded by floodplain development encouraged by FEMA's NFIP: the  
28 Pajaro River, Bennett Slough, and the Salinas River. A large extent of this designated critical

1 habitat is within the SFHA, as summarized in Attachment 19. A visual example of one of the  
 2 clear overlaps of tidewater goby designated critical habitat and the SFHA is provided through a  
 3 comparison of a map from the Federal Register notice designating tidewater goby critical habitat  
 4 with the effective FIRM panel for the mouth of the Salinas River (*See* Attachments 1-2).

5 97. Santa Cruz County contains eight designated critical habitat areas for listed tidewater  
 6 goby that are being degraded by floodplain development encouraged by FEMA's NFIP, Waddell  
 7 Creek, Scott Creek, Laguna Creek, Baldwin Creek, Moore Creek, Corcoran Lagoon, Aptos  
 8 Creek, and the Pajaro River. 78 Fed. Reg. 8746, 8759 (Feb. 6, 2013). Designated tidewater goby  
 9 critical habitat is located in Santa Cruz County within the SFHA on the following FIRM panels:  
 10 06087C0160E, 06087C0190E, 06087C0310E, 06087C0333E, 06087C0353E, 06087C0356E,  
 11 06087C0357E, and 06087C0456E.

12 98. Humboldt County contains critical habitat for listed tidewater goby including in Stone  
 13 Lagoon, Big Lagoon, Humboldt Bay, and the Eel River. 78 Fed. Reg. 8746, 8762-63 (Feb. 6,  
 14 2013). These areas are being degraded by floodplain development encouraged by FEMA's NFIP.  
 15 Humboldt Bay populations in particular, "due to isolation by manmade barriers," are especially  
 16 "vulnerable to extirpation." 78 Fed. Reg. at 8748. Approximately ten FIRM panels with  
 17 designated flood hazard zones overlap with the tidewater goby's critical habitat.

#### 18 **NFIP Adverse Impacts On South-Central California Coast Steelhead**

19 99. The SCCC Steelhead is a Distinct Population Segment that includes "all naturally  
 20 spawned populations of steelhead in streams from the Pajaro River (inclusive) to, but not  
 21 including the Santa Maria River, California." 71 Fed. Reg. 848.

22 100. The SCCC Steelhead is listed as threatened, and requires for its survival and  
 23 recovery properly functioning habitat, which includes healthy functioning riparian ecosystems  
 24 including the 100-year floodplain of rivers, streams and tidal waters in Monterey County.

25 101. The SCCC Steelhead is listed as threatened, and requires for its survival and  
 26 recovery properly functioning habitat, which includes healthy functioning riparian ecosystems  
 27 including the 100-year floodplain of rivers, streams and tidal waters in Santa Cruz County.  
 28

102. As NMFS found in its decision listing SCCC Steelhead as a threatened species, urbanization is one of the key factors causing declines of steelhead, due to the resulting “loss, degradation, simplification, and fragmentation of habitat.” 71 Fed. Reg. 856. NMFS has made similar findings in its critical habitat determinations that urbanization is one of the “activities that threaten the physical and biological features essential to listed salmon and steelhead.” 70 Fed. Reg. 52522. As NMFS has further indicated, “the quality of aquatic habitat [for SCCC Steelhead] within stream channels is intrinsically related to the adjacent riparian zones and floodplain . . . . Human activities that occur outside the stream can modify or destroy physical and biological features of the stream.” *Id.* Habitat modifications promoted by FEMA’s NFIP may affect steelhead critical habitat and require ESA section 7 consultation for this reason. *See, e.g.,* 70 Fed. Reg. at 52532.

103. SCCC Steelhead designated critical habitat includes most rivers and streams in Monterey County, including the entire extent of the Pajaro and Salinas rivers in Monterey County, and most of the Carmel River. A large extent of this designated critical habitat is within the SFHA, as summarized in Attachment 19. A visual example of one of the clear overlaps of SCCC Steelhead designated critical habitat and the SFHA is provided through a comparison of a map of critical habitat in the Carmel Valley basin from the NMFS Federal Register notice designating SCCC Steelhead critical habitat with the effective FEMA FIRM panel for confluence of the lowest section of the Carmel River with the Pacific Ocean. (*See* Attachments 3-4).

104. SCCC Steelhead designated critical habitat includes the entire extent of the Pajaro River and tributaries to the Pajaro River in Santa Cruz County. 70 Fed. Reg. at 52573-75. This designated critical habitat is within the SFHA. Designated SCCC Steelhead critical habitat is located in Santa Cruz County within the SFHA on the following FIRM panels: 06087C0275E, 06087C0381E, 06087C0383E, 06087C0384E, 06087C0392E, 06087C0393E, 06087C0394E, 06087C0403E, 06087C0411E, 06087C0412E, 06087C0416E, 06087C0417E, 06087C0418E, 06087C0419E, 06087C0440E, and 06087C0456E.

105. Much of the designated SCCC Steelhead habitat in Monterey County and Santa Cruz County is being degraded by floodplain development encouraged by FEMA’s NFIP. For

example, as detailed in the SCCC Steelhead Recovery Plan, in the Carmel River valley, “Watershed developments have increased erosion and fine sedimentation, particularly in the lower mainstem of the Carmel River, but also within some tributaries, and have contributed to habitat degradation of spawning and rearing habitats.” SCCC Steelhead Recovery Plan at 10-10.<sup>2</sup>

106. As further detailed by the SCCC Steelhead Recovery Plan, the NFIP has clear negative impacts on SCCC Steelhead:

[...][T]he National Flood Insurance Program regulations allow for development in the margins of active waterways if they are protected against 100-year flood events, and do not raise the water elevations within the active channel (floodway) more than one foot during such flood events. This standard does not adequately reflect the dynamic, mobile nature of watercourses in SCCC Steelhead Recovery Planning Area, and the critical role that margins of active waterways (riparian areas) play in the maintenance of aquatic habitats. In addition, FEMA programs for repairing flood related damages (Public Assistance Program, Individual and Households Program, and Hazard Mitigation Grant Program) promote the replacement of damaged facilities and structures in their original locations, which are prone to repeated damage from future flooding, and thus lead to repeated disturbance of riparian and aquatic habitats important to migrating, spawning, or rearing steelhead. 2013 SCCC Steelhead Recovery Plan at 3-6.

107. The 2016 5-year review by NMFS of the SCCC Steelhead DPS reaffirms that these findings remain accurate.<sup>3</sup> 2016 5-Year Review of SCCC Steelhead at 38.

108. High-quality SCCC Steelhead freshwater stream habitat is characterized by well-developed riparian vegetation creating canopy that provides extensive shading of stream courses. This is important for maintaining the low water temperatures that SCCC Steelhead need. Well-developed mature riparian vegetation, including adjacent wetlands vegetation, also helps anchor streambanks and reduce streamflow velocity by decreasing the rapidity of storm water runoff into stream channels. This helps prevent erosion during high flow events. High erosion rates can promote the deposition of silt in streams that inhibit successful SCCC Steelhead spawning.

109. Adjacent wetlands vegetation in riparian corridors also serves as an important source of a healthy benthic macroinvertebrate community—the food source for SCCC Steelhead.

<sup>2</sup>SCCC Steelhead Recovery Plan, [http://www.westcoast.fisheries.noaa.gov/publications/recovery\\_planning/salmon\\_steelhead/domains/south\\_central\\_southern\\_california/2013\\_scccs\\_recoveryplan\\_final.pdf](http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/south_central_southern_california/2013_scccs_recoveryplan_final.pdf) (Dec. 2013).

<sup>3</sup>5-Year Review of SCCC Steelhead DPS, [www.westcoast.fisheries.noaa.gov/publications/status\\_reviews/salmon\\_steelhead/2016/2016\\_sccc-steelhead.pdf](http://www.westcoast.fisheries.noaa.gov/publications/status_reviews/salmon_steelhead/2016/2016_sccc-steelhead.pdf) (2016).

1 Well-developed mature riparian vegetation also provides the source of large wood pieces that fall  
2 into stream courses and become lodged in streams, which tend to create deeper pools where  
3 reservoirs of cool water can be found and which provide other benefits as discussed below.

4 110. High-quality SCCC Steelhead freshwater stream habitat is further characterized  
5 by good channel heterogeneity, including densely-spaced hydraulic units (*i.e.*, pool and riffle  
6 sequences) and planform (*i.e.*, the stream's longitudinal configuration). Channels tend to be  
7 sinuous, *i.e.*, meandering in such streams. This sinuosity, combined with the presence of  
8 boulders and other obstructions in the streams (such as fallen large wood pieces as mentioned  
9 above) creates significant velocity refugia, *i.e.*, areas of shelter within the stream course from  
10 higher flow velocities. Such refugia are beneficial for steelhead for several reasons: they provide  
11 areas to rest and escape very high velocity flows in storm events, areas to spawn and not have  
12 redds (nests where eggs are deposited and incubated) scoured by high flows, and areas to feed.  
13 Channel meander tends to create point bars, which are the inside portions of the streambed's  
14 curves. These point bars push faster flowing water to the other side of the creek which in turn  
15 tends to create undercut banks on these opposite streambanks. Undercut banks, *i.e.*, areas where  
16 the toe of the bank is side-cut deeper than the overhanging bank, are areas where steelhead can  
17 hide from predators and escape high velocity flows.

18 111. Well-developed pool and riffle complexes are further beneficial. The existence of  
19 riffles ensures good oxygenation of waters and meeting of steelhead demands for sufficient  
20 dissolved oxygen water column values. Pools adjacent to riffle tails are advantageous steelhead  
21 feeding areas. Such streams further have substrate that is high in cobbles and gravels necessary  
22 for successful SCCC Steelhead spawning. Natural stream courses in good undisturbed condition  
23 typically also are characterized by backwater or side channel areas adjoining low flow channels  
24 (*i.e.*, the thalweg, the continuous, lowest elevation channel feature confining low flows to a well  
25 bordered, small area) into which higher flows will spill and spread. Such backwater and side  
26 channel areas in good natural condition will have lower flows than the main channel and  
27 conditions conducive for SCCC refuge and feeding, and perhaps even spawning.

28 112. FEMA's NFIP has incentivized and continues to incentivize various sorts of



1 development that are adversely modifying these characteristics in numerous miles of SCCC  
2 Steelhead freshwater habitat throughout Monterey County and in portions of Santa Cruz County  
3 along the Pajaro River and tributaries.

4           a.     The NFIP has incentivized development projects that have included the  
5 placing of fill material in backwater and side channel areas adjoining SCCC steelhead streams,  
6 including riprap and other streambank armoring to protect buildings from erosion related  
7 damage, as well as the construction of various other structures such as roads, driveways, culverts,  
8 pilings that have adversely affected backwater and side channel areas.

9           b.     The NFIP has further incentivized development projects that have facilitated  
10 channelization of steelhead streams, reducing beneficial channel heterogeneity and creating more  
11 homogeneous channels that are less conducive to steelhead spawning, rearing, and survival.

12           c.     The NFIP has further incentivized development projects that have caused the  
13 loss of riparian vegetation, including adjacent wetland vegetation and the benefits associated  
14 with such riparian vegetation discussed above.

15           d.     The NFIP has further incentivized development projects that have increased  
16 the velocity of runoff into SCCC Steelhead streams and the levels of pollutants in such storm  
17 water runoff by bringing hardscaping to areas close to such streams in a fashion that has  
18 significantly increased the runoff coefficient from land adjoining the streams and development  
19 that is a source of pollutant loading in storm water runoff. This increased storm water runoff has  
20 increased stream velocity in a manner that has promoted erosion and siltation in steelhead  
21 streams. Such erosion and siltation has tended to smother steelhead redds, reduce channel  
22 heterogeneity, decrease the amount of cobble and gravel substrate available to steelhead  
23 compared to substrate characterized by sand and silt, and degrade riparian vegetation (resulting  
24 in less shade canopy and less steelhead refugia in these streams). The elevated pollutant levels in  
25 storm water further degrade water quality in a fashion harmful to SCCC Steelhead.

26 **NFIP Adverse Impacts On Central California Coast Steelhead**

27           113.     The Central California Coast Steelhead is a Distinct Population Segment that  
28 includes “all naturally spawned populations of steelhead in coastal streams from the Russian



River (inclusive) to Aptos Creek (inclusive), and [...].” 71 Fed. Reg. 834, 849 (Jan. 5, 2006). The CCC Steelhead is listed as threatened, and requires for its survival and recovery properly functioning habitat, which includes healthy functioning riparian ecosystems including the 100-year floodplain of rivers, streams and tidal waters in Santa Cruz County.

114. As NMFS found in its decision listing CCC Steelhead as a threatened species, urbanization is one of the key factors causing declines of steelhead, due to the resulting “loss, degradation, simplification, and fragmentation of habitat.” 71 Fed. Reg. 856. NMFS has made similar, correct findings in its critical habitat determinations that urbanization is one of the “activities that threaten the physical and biological features essential to listed salmon and steelhead.” 70 Fed. Reg. 52522. As NMFS has further indicated, “the quality of aquatic habitat [for CCC Steelhead] within stream channels is intrinsically related to the adjacent riparian zones and floodplain . . . . Human activities that occur outside the stream can modify or destroy physical and biological features of the stream.” *Id.* As NMFS has specifically indicated, habitat modifications effectively promoted by FEMA’s NFIP may affect steelhead critical habitat and require ESA section 7 consultation for this reason. See, e.g., 70 Fed. Reg. at 52532.

115. CCC Steelhead designated critical habitat includes most rivers and streams in Santa Cruz County north of the Pajaro River. 70 Fed. Reg. 52488, 52562-64, 52572 (Sept. 2, 2005). This designated critical habitat overlaps with the SFHA. Designated CCC Steelhead critical habitat is located in Santa Cruz County within the SFHA on the following FIRM panels: 06087C0084E, 06087C0092E, 06087C0094E, 06087C0095E, 06087C0113E, 06087C0115E, 06087C0160E, 06087C0180E, 06087C0189E, 06087C0190E, 06087C0195E, 06087C0201E, 06087C0202E, 06087C0203E, 06087C0204E, 06087C0206E, 06087C0207E, 06087C0208E, 06087C0209E, 06087C0212E, 06087C0216E, 06087C0217E, 06087C0218E, 06087C0219E, 06087C0228E, 06087C0235E, 06087C0236E, 06087C0237E, 06087C0238E, 06087C0239E, 06087C0245E, 06087C0310E, 06087C0329E, 06087C0331E, 06087C0332E, 06087C0333E, 06087C0334E, 06087C0351E, 06087C0352E, 06087C0356E, and 06087C0357E.

116. Much of the designated CCC Steelhead habitat in Santa Cruz County is being degraded by floodplain development encouraged by FEMA’s NFIP. For example, as NMFS

1 stated in the 2016 CCC Steelhead 5-year Review:

2 As natural open space is transformed into urban neighborhoods and  
3 waterways are manipulated and engineered for flood control purposes,  
4 several hydrologic and aquatic habitat impacts predictably follow and  
5 adversely affect freshwater streams and estuarine habitats. During land use  
6 conversion (including flood control structure installation), much of the  
7 natural terrain is replaced by impervious surfaces (e.g., pavement,  
8 structure roofs, etc.), causing rapid runoff of precipitation and shorter,  
9 more intense flows; and point and non-point pollution increases as oils,  
10 chemicals (e.g., fertilizers, pesticides, etc.) and other pollutants wash into  
11 streams following precipitation events. Further, urban development often  
encroaches onto the floodplain of creeks and rivers, destroying riparian  
and floodplain habitat. This eliminates refuge habitat important for fish  
during high flow events, and limits natural hydraulic/geomorphic  
processes that create and maintain complex instream habitat. In addition to  
riparian effects, estuarine wetlands important to CCC steelhead have also  
been adversely affected by urbanization and related land use practices.

12 2016 CCC Steelhead 5-year Review at 20.

13 117. High-quality CCC Steelhead freshwater stream habitat is characterized by well-  
14 developed riparian vegetation creating canopy that provides extensive shading of stream courses.  
15 This is important for maintaining the low water temperatures that CCC Steelhead need. Well-  
16 developed mature riparian vegetation, including adjacent wetlands vegetation, also helps anchor  
17 streambanks and reduce streamflow velocity by decreasing the rapidity of storm water runoff  
18 into stream channels. This helps prevent erosion during high flow events. High erosion rates can  
19 promote the deposition of silt in streams that inhibit successful CCC Steelhead spawning.

20 118. Adjacent wetlands vegetation in riparian corridors also serves as an important  
21 source of a healthy benthic macroinvertebrate community—the food source for CCC Steelhead.  
22 Well-developed mature riparian vegetation also provides the source of large wood pieces that fall  
23 into stream courses and become lodged in streams, which tend to create deeper pools where  
24 reservoirs of cool water can be found and which provide other benefits as discussed below.

25 119. High-quality CCC Steelhead freshwater stream habitat is further characterized by  
26 good channel heterogeneity, including densely-spaced hydraulic units (*i.e.*, pool and riffle  
27 sequences) and planform (*i.e.*, the stream's longitudinal configuration). Channels tend to be  
28 sinuous, *i.e.*, meandering in such streams. This sinuosity, combined with the presence of

1 boulders and other obstructions in the streams (such as fallen large wood pieces as mentioned  
2 above) creates significant velocity refugia, *i.e.*, areas of shelter within the stream course from  
3 higher flow velocities. Such refugia would be beneficial for steelhead for several reasons: they  
4 provide areas to rest and escape very high velocity flows in storm events, areas to spawn and not  
5 have redds (nests where eggs are deposited and incubated) scoured by high flows, and areas to  
6 feed. Channel meander tends to create point bars, which are the inside portions of the  
7 streambed's curves. These point bars push faster flowing water to the other side of the creek  
8 which in turn tends to create undercut banks on these opposite streambanks. Undercut banks, *i.e.*,  
9 areas where the toe of the bank is side-cut deeper than the overhanging bank, are areas where  
10 steelhead can hide from predators and escape high velocity flows.

11 120. Well-developed pool and riffle complexes are further beneficial. The existence of  
12 riffles ensures good oxygenation of waters and meeting of steelhead demands for sufficient  
13 dissolved oxygen water column values. Pools adjacent to riffle tails are advantageous steelhead  
14 feeding areas. Such streams further have substrate that is high in cobbles and gravels necessary  
15 for successful CCC Steelhead spawning. Natural stream courses in good undisturbed condition  
16 typically also are characterized by backwater or side channel areas adjoining low flow channels  
17 (*i.e.*, the thalweg, the continuous, lowest elevation channel feature confining low flows to a well  
18 bordered, small area) into which higher flows will spill and spread. Such backwater and side  
19 channel areas in good natural condition will have lower flows than the main channel and  
20 conditions conducive for CCC Steelhead refuge and feeding, and perhaps even spawning.

21 121. FEMA's NFIP has incentivized and continues to incentivize various sorts of  
22 development, including the placement of fill, the construction of buildings, roads, driveways,  
23 culverts, revetments, and structures to armor river and stream banks such as retaining walls, that  
24 is adversely modifying these characteristics in numerous miles of CCC Steelhead freshwater  
25 habitat throughout Santa Cruz County.

26 a. The NFIP has incentivized development projects that have included the  
27 placing of fill material in backwater and side channel areas adjoining CCC Steelhead streams,  
28 including riprap and other streambank armoring to protect buildings from erosion related

1 damage, as well as the construction of various other structures such as roads, driveways, culverts,  
2 pilings that have adversely affected backwater and side channel areas.

3 b. The NFIP has further incentivized development projects that have  
4 facilitated channelization of steelhead streams, reducing beneficial channel heterogeneity in  
5 creating more homogeneous channels that are less conducive to steelhead spawning, rearing, and  
6 survival.

7 c. The NFIP has further incentivized development projects that have caused  
8 the loss of riparian vegetation, including adjacent wetland vegetation and the benefits associated  
9 with such riparian vegetation discussed above.

10 d. The NFIP has further incentivized development projects that have  
11 increased the velocity of runoff into CCC Steelhead streams and the levels of pollutants in such  
12 storm water runoff by bringing hardscaping to areas close to such streams in a fashion that has  
13 significantly increased the runoff coefficient from land adjoining the streams and development  
14 that is a source of pollutant loading in storm water runoff. This increased storm water runoff has  
15 increased stream velocity in a manner that has promoted erosion and siltation in steelhead  
16 streams. Such erosion and siltation has tended to smother steelhead redds, reduce channel  
17 heterogeneity, decrease the amount of cobble and gravel substrate available to steelhead  
18 compared to substrate characterized by sand and silt, and degrade riparian vegetation (resulting  
19 in less shade canopy and less steelhead refugia in these streams). The elevated pollutant levels in  
20 storm water of further degraded water quality in a fashion harmful to CCC Steelhead.

21 **NFIP Adverse Impacts On Central California Coast Coho Salmon**

22 122. The Central California Coast coho salmon is an evolutionarily significant unit that  
23 includes “naturally spawned coho salmon originating from rivers south of Punta Gorda,  
24 California to and including Aptos Creek, as well as such coho salmon originating from  
25 tributaries to San Francisco Bay. This evolutionary significant unit also includes coho salmon  
26 from three artificial propagation programs: the Don Clausen Fish Hatchery Captive Broodstock  
27 Program; the Scott Creek/King Fisher Flats Conservation Program; and the Scott Creek Captive  
28 Broodstock Program.” 79 Fed. Reg. 20802, 20816 (April 14, 2014); 70 Fed. Reg. 37160, 37204

1 (June 28, 2005).

2 123. CCC Coho designated critical habitat includes “all river reaches accessible to  
3 listed coho salmon [from the Santa Cruz County boundary with San Mateo County] south to the  
4 San Lorenzo River.” 64 Fed. Reg. 24601 (May 5, 1999). This designated critical habitat is within  
5 the SFHA. Designated CCC Coho critical habitat is located in Santa Cruz County within the  
6 SFHA on the following FIRM panels: 06087C0084E, 06087C0092E, 06087C0094E,  
7 06087C0095E, 06087C0113E, 06087C0115E, 06087C0160E, 06087C0180E, 06087C0189E,  
8 06087C0190E, 06087C0195E, 06087C0201E, 06087C0202E, 06087C0203E, 06087C0204E,  
9 06087C0206E, 06087C0207E, 06087C0208E, 06087C0209E, 06087C0212E, 06087C0216E,  
10 06087C0217E, 06087C0218E, 06087C0219E, 06087C0228E, 06087C0236E, 06087C0238E,  
11 06087C0310E, 06087C0329E, 06087C0331E, 06087C0332E, 06087C0333E, and  
12 06087C0334E.

13 124. Much of the designated CCC Coho habitat in Santa Cruz County is being  
14 degraded by floodplain development encouraged by FEMA’s NFIP. Threats to CCC Coho  
15 include development of riparian habitat and floodplains. As NMFS stated in its 2016 5-year  
16 Review:

17 many important coho salmon watersheds that overlap with dense urban  
18 areas, such as the Russian and San Lorenzo rivers, continually suffer  
19 aquatic habitat degradation resulting from urban stressors. As natural open  
20 space is transformed into urban neighborhoods, several hydrologic and  
21 aquatic habitat impacts predictably follow. Much of the existing bare soil  
22 is replaced by impervious surfaces (e.g., pavement, structure roofs, etc.),  
23 causing rapid runoff of precipitation and shorter, more intense flood flows.  
24 Furthermore, urban development often encroaches onto the floodplain of  
25 creeks and rivers, destroying riparian and floodplain habitat important to  
26 fish during high flow events, and limiting natural hydraulic/geomorphic  
27 processes that create and maintain complex instream habitat. Both point  
28 and non-point pollution increases as oils, chemicals (e.g, fertilizers,  
pesticides, etc.) and other urban pollutants wash into streams following  
precipitation events. All of these impacts existed at the time of listing and,  
due to population growth, have likely worsened since.

2016 5-Year Review at 18. NMFS further observed that

[l]ost wetland and estuarine habitat was an identified factor leading to the  
initial listing of CCC coho salmon, and continues to hinder habitat

functionality and productivity at this time. For populations along the coast, estuarine habitats consist primarily of seasonal, “bar-built” lagoons. The lagoons form in spring or summer as sandbars form, separating the freshwater and marine environments. The lagoons can provide a highly productive environment where rearing juvenile salmonids can experience rapid growth and where the brackish waters provide an opportunity for them to acclimate to saltwater prior to ocean entry. Estuary/lagoons and other low elevation flood-prone habitat also function as important over-wintering habitat for juvenile salmonids, especially coho salmon. Past and present land development adjacent to coastal estuaries and lagoons has degraded tidally-inundated habitat, altered natural estuarine processes, and generally impaired water quality.

2016 5-Year Review at 18.

125. CCC Coho stream habitat is characterized by well-developed riparian vegetation creating canopy that provides extensive shading of stream courses. This is important for maintaining the low water temperatures that CCC Coho need. Well-developed mature riparian vegetation, including adjacent wetlands vegetation, also helps anchor streambanks and reduce streamflow velocity by decreasing the rapidity of storm water runoff into stream channels. This helps prevent erosion during high flow events. High erosion rates can promote the deposition of silt in streams that inhibit successful CCC Coho spawning.

126. Adjacent wetlands vegetation in riparian corridors also serves as an important source of a healthy benthic macroinvertebrate community—the food source for CCC Coho. Well-developed mature riparian vegetation also provides the source of large wood pieces that fall into stream courses and become lodged in streams, which tend to create deeper pools where reservoirs of cool water can be found and which provide other benefits as discussed below.

127. High-quality CCC Coho freshwater stream habitat is further characterized by good channel heterogeneity, including densely-spaced hydraulic units (*i.e.*, pool and riffle sequences) and planform (*i.e.*, the stream's longitudinal configuration). Channels tend to be sinuous, *i.e.*, meandering in such streams. This sinuosity, combined with the presence of boulders and other obstructions in the streams (such as fallen large wood pieces as mentioned above) creates significant velocity refugia, *i.e.*, areas of shelter within the stream course from higher flow velocities. Such refugia would be beneficial for coho for several reasons: they

1 provide areas to rest and escape very high velocity flows in storm events, areas to spawn and not  
2 have redds (nests where eggs are deposited and incubated) scoured by high flows, and areas to  
3 feed. Channel meander tends to create point bars, which are the inside portions of the  
4 streambed's curves. These point bars push faster flowing water to the other side of the creek  
5 which in turn tends to create undercut banks on these opposite streambanks. Undercut banks, *i.e.*,  
6 areas where the toe of the bank is side-cut deeper than the overhanging bank, are areas where  
7 coho can hide from predators and escape high velocity flows.

8 128. Well-developed pool and riffle complexes are further beneficial. The existence of  
9 riffles ensures good oxygenation of waters and meeting of coho demands for sufficient dissolved  
10 oxygen water column values. Pools adjacent to riffle tails are advantageous coho feeding areas.  
11 Such streams further have substrate that is high in cobbles and gravels necessary for successful  
12 CCC Coho spawning. Natural stream courses in good undisturbed condition typically also are  
13 characterized by backwater or side channel areas adjoining low flow channels (*i.e.*, the thalweg,  
14 the continuous, lowest elevation channel feature confining low flows to a well bordered, small  
15 area) into which higher flows will spill and spread. Such backwater and side channel areas in  
16 good natural condition will have lower flows than the main channel and conditions conducive for  
17 CCC Coho refuge and feeding, and perhaps even spawning.

18 129. FEMA's NFIP has incentivized and continues to incentivize various sorts of  
19 development, including the placement of fill, the construction of buildings, roads, driveways,  
20 culverts, revetments, and structures to armor river and stream banks such as retaining walls, that  
21 is adversely modifying these characteristics in numerous miles of CCC Coho freshwater habitat  
22 throughout Santa Cruz County.

23 a. The NFIP has incentivized development projects that have included the  
24 placing of fill material in backwater and side channel areas adjoining CCC Coho streams,  
25 including riprap and other streambank armoring to protect buildings from erosion related  
26 damage, as well as the construction of various other structures such as roads, driveways, culverts,  
27 pilings that have adversely affected backwater and side channel areas.

28 b. The NFIP has further incentivized development projects that have facilitated



channelization of coho streams, reducing beneficial channel heterogeneity in creating more homogeneous channels that are less conducive to coho spawning, rearing, and survival.

c. The NFIP has further incentivized development projects that have caused the loss of riparian vegetation, including adjacent wetland vegetation and the benefits associated with such riparian vegetation discussed herein.

d. The NFIP has further incentivized development projects that have increased the velocity of runoff into CCC Coho streams and the levels of pollutants in such storm water runoff by bringing hardscaping to areas close to such streams in a fashion that has significantly increased the runoff coefficient from land adjoining the streams and development that is a source of pollutant loading in storm water runoff. This increased storm water runoff has increased stream velocity in a manner that has promoted erosion and siltation in coho streams. Such erosion and siltation has tended to smother coho redds, reduce channel heterogeneity, decrease the amount of cobble and gravel substrate available to coho compared to substrate characterized by sand and silt, and degrade riparian vegetation (resulting in less shade canopy and less coho refugia in these streams). The elevated pollutant levels in storm water of further degraded water quality in a fashion harmful to CCC Coho.

#### **NFIP Adverse Impacts On Salmon and Steelhead in Humboldt County**

130. Listed salmon and steelhead require for their survival and recovery properly functioning habitat, which includes healthy functioning riparian ecosystems including the 100-year floodplain of rivers, streams, and tidal waters in Humboldt County. In critical habitat determinations, NMFS has found that urbanization is one of the “activities that threaten the physical and biological features essential to listed salmon and steelhead.” 73 Fed. Reg. 7,816, 7,833 (Feb. 11, 2008). Further, NMFS indicated “the quality of aquatic habitat within stream channels is intrinsically related to the adjacent riparian zones and floodplain . . . . Human activities that occur outside the stream can modify or destroy physical and biological features of the stream.” *Id.* at 7,834. NMFS has specifically indicated that habitat modifications authorized by FEMA that may affect salmonid critical habitat require section 7 consultation. *See, e.g., id.* at 7,839. Humboldt County contains numerous floodplain areas that provide critical habitat for



1 listed salmon and steelhead that are susceptible to being degraded by floodplain development  
2 encouraged by FEMA's NFIP.

3 131. The Southern Oregon/Northern California Coast ESU of coho salmon is listed as  
4 threatened. 70 Fed. Reg. 37,160, 37,171 (June 28, 2005). This ESU includes populations in  
5 coastal streams from Oregon to Punta Gorda. *Id.* at 37,176. Coho salmon habitat includes the  
6 Mad River, Humboldt Bay, Eel River, and Mattole River. 64 Fed. Reg. 24,049, 24,059 (May 5,  
7 1999). Coho salmon critical habitat overlaps with approximately thirty or more FIRM panels  
8 containing designated flood hazard zones.

9 132. The Northern California DPS of steelhead is also listed as threatened. 71 Fed.  
10 Reg. 834 (Jan. 5, 2006). This DPS includes all naturally spawned populations in coastal river  
11 basins from Redwood Creek to the Russian River. *Id.* at 849. Critical habitat includes Big  
12 Lagoon, the Mad River, the Eel River, and associated creeks and tributaries. 70 Fed. Reg. 52,488  
13 (Sept. 2, 2005). Available data "indicate a substantial decline from the abundance levels of the  
14 1930s." 71 Fed. Reg. at 852. Recent five-year mean abundance levels are "extremely low," and  
15 juvenile populations are "exhibit[ing] declining trends." *Id.* Steelhead critical habitat overlaps  
16 with approximately thirty-five or more FIRM panels with designated flood hazard zones.

17 133. Steelhead populations are significantly affected by urban development, road  
18 construction, and recreation, which lead to alteration of streambank and channel morphology,  
19 alteration of water temperatures, degradation of water quality, elimination of spawning and  
20 rearing habitats, streambank erosion, and increased sedimentation. *Id.* at 856. Over ninety  
21 percent of steelhead wetland and estuarine habitat in California has already been eliminated, and  
22 remaining habitat is largely degraded. *Id.*

23 134. FEMA's NFIP has incentivized and facilitated and continues to incentivize and  
24 facilitate development, including the placement of fill, the construction of buildings, roads,  
25 driveways, culverts, and revetments, which is having the adverse effects described above,  
26 including altering habitat such that they no longer have the characteristics necessary to support  
27 salmon and steelhead in Humboldt County.

28 **NFIP Adverse Impacts On Green Sturgeon**

1        135.        The southern DPS of green sturgeon is threatened under the ESA. 71 Fed. Reg.  
2 17,757 (Apr. 7, 2006). The “principal factor for decline of the Southern DPS is the reduction of  
3 spawning area to a limited area of the Sacramento River.” *Id.* at 17,762. Dams, channel locks,  
4 and channel gates created impassible barriers blocking green sturgeon access to historical  
5 spawning grounds. *Id.* Water diversions and resulting low flows, high water temperatures, and  
6 water contamination are additional threats. *Id.* at 17,763. Green sturgeon critical habitat is  
7 located within approximately three FIRM panels that contain designated flood hazard zones.

8        136.        FEMA’s NFIP has incentivized and facilitated and continues to incentivize and  
9 facilitate development, including the placement of fill, the construction of buildings, roads,  
10 driveways, culverts, and revetments, which is having the adverse effects described above,  
11 including altering habitat such that they no longer have the characteristics necessary to support  
12 green sturgeon.

13 **NFIP Adverse Impacts On Pacific Eulachon**

14        137.        The southern DPS of the Pacific eulachon is listed as threatened. 76 Fed. Reg.  
15 20,558 (Apr. 13, 2011). This species is threatened wherever found from British Columbia to  
16 south of the Mad River. *Id.* at 20,561. Pacific eulachon critical habitat overlaps with  
17 approximately nine FIRM panels with designated flood hazard zones.

18        138.        FEMA’s NFIP has incentivized and facilitated and continues to incentivize and  
19 facilitate development, including the placement of fill, the construction of buildings, roads,  
20 driveways, culverts, and revetments, which is having the adverse effects described above,  
21 including altering habitat such that they no longer have the characteristics necessary to support  
22 Pacific eulachon.

23 **NFIP Adverse Impacts On Marbled Murrelet**

24        139.        The marbled murrelet (*Brachyramphus marmoratus*) is a threatened species under  
25 the federal Endangered Species Act. 57 Fed. Reg. 45,328 (Oct. 1, 1992). A small seabird feeding  
26 on fish and invertebrates, marbled murrelets spend the majority of their time in near-shore  
27 marine waters and come inland to nest. *Id.* Marbled murrelets are threatened due to loss and  
28 modification of nesting habitat, which consists of large, old-growth trees near the coastline. *Id.* at

45,328-29; *see also* 81 Fed. Reg. 51,348, 51,351 (Aug. 4, 2016). Forests typically require 200 to 250 years to develop old-growth characteristics necessary to support marbled murrelet nesting. 81 Fed. Reg. at 51,352.

140. Marbled murrelet “productivity is greatest in large, complex-structured forests far from human activity” with “minimal human recreation and settlement.” *Id.* at 51,354-55. “Human activities can significantly compromise the effectiveness of the forested areas surrounding nests.” *Id.* at 51,355. Among birds in the Pacific Northwest, “marbled murrelet is considered to be one of the most sensitive to forest fragmentation.” *Id.*

141. FWS designated critical habitat for marbled murrelet in several watersheds in Santa Cruz County. 71 Fed. Reg. 53838, 53948-51 (Sept. 12, 2006). Designated marbled murrelet critical habitat is located in Santa Cruz County within the SFHA on the following FIRM panels: 06087C0095E, 06087C0160E, and 06087C0180E.

142. The entirety of Humboldt County is designated critical habitat for the marbled murrelet. In Humboldt County, marbled murrelet critical habitat is located within approximately twenty-eight FIRM panels that contain designated flood hazard zones.

143. Designated marbled murrelet habitat in Santa Cruz County and Humboldt County is being degraded by floodplain development encouraged by FEMA’s NFIP. FEMA’s NFIP has incentivized and facilitated and continues to incentivize and facilitate development, which is having the adverse effects described above, including altering and fragmenting habitat such that they no longer have the characteristics necessary to support Marbled murrelet.

#### **NFIP Adverse Impacts On Western Snowy Plover**

144. The Western Snowy Plover is a small bird that the FWS listed as threatened on March 5, 1993. 58 Fed. Reg. 12864 (Mar. 5, 1993). WSP habitat includes coastal beach areas, beaches at river/creek mouths, and estuaries.

145. FWS has designated four critical habitat units for the WSP in Monterey County: Jetty Road to Aptos (partially in Monterey County), Elkhorn Slough Mudflats, Monterey to Moss Landing, and Point Sur Beach. 77 Fed. Reg. 36727, 36765-66 (June 19, 2012). Areas of each of these units lie within the SFHA, as summarized in Attachment 19. A visual example of

1 clear overlaps of WSP designated critical habitat and the SFHA is provided through a  
 2 comparison of a map of critical habitat for Jetty Road to Aptos/Elkhorn Slough Mudflats from  
 3 the Federal Register notice revising the designation of WSP critical habitat with the effective  
 4 FIRM panel for that area. (*See* Attachments 5-6).

5 146. As FWS found in its decision designating WSP critical habitat, development is a  
 6 key threat to the Jetty Road to Aptos, Elkhorn Slough Mudflats, and Monterey to Moss Landing  
 7 units, each of which is an important WSP breeding area. 77 Fed. Reg. 36765-66.

8 147. FWS has designated four critical habitat units for the WSP in Santa Cruz County:  
 9 Waddell Creek Beach, Scott Creek Beach, Wilder Creek Beach, and Jetty Road to Aptos. 77 Fed.  
 10 Reg. 36727, 36764-65 (June 19, 2012). This designated critical habitat is within the SFHA.  
 11 Designated WSP critical habitat is located in Santa Cruz County within the SFHA on the  
 12 following FIRM panels: 06087C160E, 06087C190E, 06087C0329E, 06087C0358E,  
 13 06087C0359E, 06087C0380E, 06087C0389E, 06087C0390E, and 06087C0452E.

14 148. As FWS found in its decision designating WSP critical habitat, development is a  
 15 key threat to the designated habitat units in Santa Cruz County, each of which is an important  
 16 WSP breeding area. 77 Fed. Reg. 36765-66.

17 149. Nine units of critical habitat for western snowy plovers are located in Humboldt  
 18 County. *See* 77 Fed. Reg. 36,728 (June 19, 2012). WSP critical habitat is found within  
 19 approximately twenty-four FIRM panels with designated flood hazard zones.

20 150. As FWS found in its decision designating WSP critical habitat, development is a  
 21 key threat to the designated habitat units in Humboldt County, each of which is an important  
 22 WSP breeding area. 77 Fed. Reg. 36765-66.

23 151. As the FWS WSP Recovery Plan details, harms to WSP brought by development  
 24 include:

25 Construction of homes, resorts, and parking lots on coastal sand dunes  
 26 constitutes irrevocable loss of habitat for western snowy plovers [...]. In  
 27 addition to causing direct loss of habitat, there are additional potential adverse  
 28 impacts to western snowy plovers from urban development []. Increased  
 development increases human use of the beach, thereby increasing disturbance  
 to nesting plovers. When urban areas interface with natural habitat areas, the  
 value of breeding and wintering habitat to native species may be diminished by

increased levels of illumination at night (*e.g.*, building and parking lot lights); increased sound and vibration levels; and pollution drift (*e.g.*, pesticides) [] raking removes habitat features for both plovers and their prey, and precludes nests from being established. Also, construction of residential development in or near western snowy plover habitat attracts predators, including domestic cats.

WSP Recovery Plan at 34.<sup>4</sup>

152. Designated WSP habitat in Humboldt County, Santa Cruz County and Monterey County is being degraded by floodplain development encouraged by FEMA's NFIP. FEMA's NFIP has incentivized and facilitated and continues to incentivize and facilitate this type of construction activity, as such construction activity occurs within areas mapped by FEMA as being within flood prone areas eligible for national flood insurance.

#### **NFIP Adverse Impacts On Northern Spotted Owl**

153. The northern spotted owl is listed as threatened under the ESA. 55 Fed. Reg. 26,114 (June 26, 1990). Owl populations have declined or been extirpated in some areas "as a result of a decline or modification of old-growth and mature forest habitat." *Id.* at 26,115. Decline in historical habitat may be as high as eighty-three to eighty-eight percent. *Id.* at 26,175. Approximately fifteen FIRM panels containing designated flood hazard zones overlap with designated northern spotted owl critical habitat.

154. FEMA's NFIP has incentivized and facilitated and continues to incentivize and facilitate development in Humboldt County which is having the adverse effects described above, including altering and fragmenting habitat such that they no longer have the characteristics necessary to support northern spotted owl.

#### **NFIP Adverse Impacts On Short-Tailed Albatross**

155. The short-tailed albatross is listed as endangered. 65 Fed. Reg. 46,643 (July 31, 2000). A large pelagic bird with long narrow wings, the short-tailed albatross frequents nearshore and coastal waters. *Id.* at 46,644, 46,647. Albatross habitat likely intersects with approximately twenty-three FIRM panels with designated flood hazard zones.

<sup>4</sup> WSP Recovery Plan, [https://www.fws.gov/arcata/es/birds/WSP/documents/RecoveryPlanWebRelease\\_09242007/WSP\\_Final\\_RP\\_10-1-07.pdf](https://www.fws.gov/arcata/es/birds/WSP/documents/RecoveryPlanWebRelease_09242007/WSP_Final_RP_10-1-07.pdf) (Aug. 13, 2007).

156. FEMA's NFIP has incentivized and facilitated and continues to incentivize and facilitate development, which is having the adverse effects described above, including altering and fragmenting habitat such that they no longer have the characteristics necessary to support short-tailed albatross.

#### **NFIP Adverse Impacts On Yadon's Piperia**

157. Yadon's piperia is a slender perennial herb in the orchid family that is endemic to Monterey County. FWS has listed the plant as endangered. 63 Fed. Reg. 43,100 (Aug. 12, 1998). FWS has designated 8 units of critical habitat for Yadon's piperia in Monterey County. As underscored by the 5-year status review for the plant published by FWS in 2009, "Habitat loss and alteration resulting from previous, current, and proposed developments continue to pose substantial threats to *Piperia yadonii*." <sup>5</sup> Yadon's Piperia 5-Year Review at 7.

158. At least one of 8 designated critical habitat units for Yadon's piperia in Monterey County overlaps with the SFHA, which FWS has titled sub-unit 6c, located along Seal Rock Creek on the Monterey Peninsula. 72 Fed. Reg. 60410, 60425 (Oct. 24, 2007). A visual example of overlaps of designated critical habitat of Yadon's piperia and the SFHA is provided through a comparison of a map from the Federal Register notice designating critical habitat with the effective FIRM panel for that area.<sup>6</sup> (See Attachments 7-8).

159. Harmful influences from surrounding development that the FEMA NFIP has facilitated and incentivized and continues to facilitate and incentivize include drifting of pesticides from landscaped areas associated with development, trampling by humans brought close to the plants' habitat by development, dumping of yard waste, and cutting of vegetation for fire control. *Id.* Habitat fragmentation caused by such development that reduces native vegetation to "islands" among roads, residences, and golf courses also threatens Yadon's piperia. 5 Year Plan at 7. Fragmentation caused by NFIP facilitated development prevents gene flow between

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<sup>5</sup> Yadon's Piperia 5-Year Review, [https://ecos.fws.gov/docs/five\\_year\\_review/doc2575.pdf](https://ecos.fws.gov/docs/five_year_review/doc2575.pdf) (2009).

<sup>6</sup> Subunit 6c partially overlaps with the SFHA that borders Seal Rock Creek in the middle of the FIRM panel.

populations because pollinators are less likely to successfully move through residential and commercial areas to reach islands of native vegetation and because wind-dispersed seeds are less likely to land in areas suitable for germination than seeds carried by pollinators. 5 Year Plan at 7; Designation of Critical Habitat for *Piperia yadonii*, 72 Fed. Reg. 60410, 60411 (Oct. 24, 2007). This is especially harmful in the case of Yadon's piperia because its blooming season is brief, individuals that flower in one year may not flower the next, and a portion of the population may be completely dormant in any given year. 5 Year Plan at 1. Fragmentation of native plants' habitats caused by development that has been incentivized and facilitated by and is being incentivized and facilitated by the FEMA NFIP may also allow the rise of non-native species that compete with native species for survival. 72 Fed. Reg. 60410, 60423. In sum, designated Yadon's piperia habitat in Monterey County is being degraded by floodplain development encouraged by FEMA's NFIP.

#### **NFIP Adverse Impacts On Purple Amole**

160. The purple amole is a low growing lily that FWS has listed as threatened. Determination of Threatened Status for *Chlorogalum purpureum*, 65 Fed. Reg. 14878 (Mar. 20, 2000). FWS has designated one critical habitat unit for the plant in Monterey County, on private property east of Fort Hunter Liggett near Lockwood, California. 65 Fed. Reg. 14878, 14878. As FWS found in its critical habitat determinations for the plant, key threats to the plant include "alteration of lands" and "direct loss of plants due to construction." 67 Fed. Reg. 65414, 65425 (Oct. 24, 2002).

161. The critical habitat unit for the purple amole in Monterey County partially overlaps with the SFHA, as summarized in Attachment 19. A visual example of overlaps of designated critical habitat of purple amole and the SFHA is provided through a comparison a map of critical habitat for purple amole from the Federal Register notice designating critical habitat with the effective FIRM panel for that area. (*See* Attachments 9-10).

162. The elements of critical habitat for the purple amole include well-drained, red clay soils with a large component of gravel and pebbles on the upper soil surface. 67 Fed. Reg. 65414, 65425. The purple amole also thrives in plant communities that support associated



pollinators and predator-prey species, including grassland, blue oak woodland or oak savannahs, and open areas within shrubland communities. *Id.* Development that the FEMA NFIP has facilitated and incentivized and continues to facilitate and incentivize disturbs the soil in these ecosystems and eliminates the open areas required for the purple amole and other associated plants and animals to flourish. *Id.* The health and proximity of associated plants and animals is vital because the purple amole depends upon the presence of pollinators for its survival. *Id.* There must also be little cover of other species, which compete for resources available for growth and reproduction in order, for the purple amole to thrive. *Id.* In upsetting natural ecosystems, development that the FEMA NFIP has facilitated and incentivized and continues to facilitate and incentivize may allow invasive, non-native species to cover species such as the purple amole and compete with native species for survival. *Id.* For this reason, exotic plant invasions are particularly likely in habitats disturbed by human activities. Bjerknes, *et al.*, Effects of an Exotic Plant and Habitat Disturbance on Pollinator Visitation and Reproduction in a Boreal Forest Herb, *Am. J. Botany* (2006) (*Available at* <http://www.amjbot.org/content/93/6/868.full.pdf+html>). In sum, designated Yadon's piperia habitat in Monterey County is being degraded by floodplain development encouraged by FEMA's NFIP.

#### **NFIP Adverse Impacts On Humboldt Bay Wallflower**

163. The Humboldt Bay wallflower, or Menzies' wallflower, is an endangered succulent herb. 57 Fed. Reg. 27,848, 27,848-49 (June 22, 1992). The wallflower is distributed within coastal dunes between the mouths of the Mad River and Humboldt Bay. *Id.* at 27,849. The Humboldt Bay wallflower has been affected by "commercial and residential development, off-road vehicle use, trampling by hikers and equestrians, sand mining, and/or disposal or dredged material." *Id.* at 27,854. Its limited habitat is adjacent to expanding urban centers and subject to proposed coastal developments. *Id.* Its habitat in Humboldt County overlaps with approximately eleven FIRM panels containing designated flood hazard zones.

164. FEMA's NFIP has incentivized and facilitated and continues to incentivize and facilitate development, which is having the adverse effects described above, including altering



1 and fragmenting habitat such that they no longer have the characteristics necessary to support  
2 Humboldt Bay wallflower.

3 **NFIP Adverse Impacts On Beach Layia**

4 165. The beach layia is an endangered plant of the sunflower family. 57 Fed. Reg. at  
5 27,850. It occurs in the coastal dunes of Humboldt Bay and near the mouths of the McNutt  
6 Gulch and Mattole River. *Id.* The most imminent threat facing the beach layia is the destruction  
7 and modification of coastal dune systems by commercial and residential development, trampling,  
8 and disposal of dredged material from nearby bays and waterways. *Id.* at 27,853-54.

9 Approximately eight FIRM panels with designated flood hazard zones overlap with beach layia  
10 habitat.

11 166. FEMA's NFIP has incentivized and facilitated and continues to incentivize and  
12 facilitate development, which is having the adverse effects described above, including altering  
13 and fragmenting habitat such that they no longer have the characteristics necessary to support  
14 beach layia.

15 **NFIP Adverse Impacts On Western Lily**

16 167. The western lily is a perennial lily located in the headlands of Humboldt Bay. 59  
17 Fed. Reg. 42,171 (Aug. 17, 1994). It has an "extremely restricted distribution within 2 miles . . .  
18 of the coast." *Id.* Historical populations have been extirpated by coastal development. *Id.* at  
19 42,173. Western lily habitat overlaps with approximately nineteen FIRM panels containing  
20 designated flood hazard zones.

21 168. FEMA's NFIP has incentivized and facilitated and continues to incentivize and  
22 facilitate development, which is having the adverse effects described above, including altering  
23 and fragmenting habitat such that they no longer have the characteristics necessary to support  
24 western lily.

25 **NFIP Adverse Impacts On Kneeland Prairie Penny-Cress**

26 169. The Kneeland Prairie penny-cress is an endangered perennial herb whose only  
27 population is on the serpentine soils of the Kneeland Prairie in Humboldt County. 65 Fed. Reg.  
28 6332 (Feb. 9, 2000). Kneeland Prairie penny-cress habitat has been "significantly reduced" since

1 the 1960s after construction of the Kneeland Prairie Airport and a county road. *Id.* at 6334.

2 Currently, all known colonies occupy an area of only 0.8 acres, which is inside of a FIRM panel  
3 with a designated flood hazard zone. 67 Fed. Reg. 62,897, 62,898 (Oct. 9, 2002).

4 170. FEMA's NFIP has incentivized and facilitated and continues to incentivize and  
5 facilitate development, which is having the adverse effects described above, including altering  
6 and fragmenting habitat such that they no longer have the characteristics necessary to support  
7 Kneeland Prairie penny-cress.

8 **NFIP Adverse Impacts On California Tiger Salamander**

9 171. FWS has listed the California tiger salamander as threatened. 69 Fed. Reg. 47212  
10 (Aug. 4, 2004). The FWS has designated as CTS critical habitat an area inhabited by CTS named  
11 "Unit 3, Haystack Hill Unit," located in the upper reaches of the Carmel River watershed. This  
12 Unit 3 area partially overlaps with the SFHA. As NMFS has found in its critical habitat  
13 determinations, key threats to Unit 3 include "erosion and sedimentation" and "disturbance  
14 activities associated with development that may alter the hydrologic functioning of the aquatic  
15 habitat." 70 Fed. Reg. 49830, 49403 (Aug. 23, 2005). The overlap of the SFHA and Unit 3 is  
16 summarized in Attachment 19. A visual example of overlaps of designated critical habitat of the  
17 CTS and the SFHA is provided through a comparison of a map of critical habitat for the CTS  
18 from the Federal Register notice of designation of critical habitat with one of the effective FIRM  
19 panels for that area.<sup>7</sup> (See Attachments 11-12).

20 172. FEMA's NFIP has incentivized and facilitated and continues to incentivize and  
21 facilitate development, including the placement of fill, the construction of buildings, roads,  
22 driveways, culverts, and revetments, which is having the adverse effects described above,  
23 including filling in wetlands and aquatic habitat or altering them such that they no longer have  
24 the hydrology necessary to support CTS (as when water flows are cut off to areas or where they  
25

26 \_\_\_\_\_  
27 <sup>7</sup> The overlap occurs near where Carmel Valley Road enters the critical habitat on the map of  
28 critical habitat for the CTS from the Federal Register notice designation of critical habitat, which  
is on the lower left corner of the FIRM panel for that area.

are altered in such a fashion that they no longer retain water or support the aquatic/wetland vegetation that provides proper habitat function).

**NFIP Adverse Impacts On Santa Cruz Long-toed Salamander**

173. FWS has listed the Santa Cruz Long-toed salamander as endangered. 32 Fed. Reg. 4001 (March 11, 1967). There are several known areas in Santa Cruz County occupied by the SCLTS. SCLTS Recovery Plan at 2 (Figure 1) and 13 (Table 1) (identifying Valencia Lagoon, Seascape Pond, Calabasas Pond, Ellicott Pond, Buena Vista Pond, Rancho Road Pond, Anderson's Pond, Green's Pond, Merk Road Pond, and Corralitos creek drainage). SCLTS occupies areas around ponds and sloughs, using the wet areas to breed and completing the remainder of its lifecycle in the surrounding upland areas. *Id.* at 25-31. SCLTS depends on upland areas to migrate to and from breeding sites.

174. Filling and draining of ponds and sloughs and fragmentation of upland habitat pose significant risks to SCLTS. According the FWS, "anthropogenic changes (including agricultural, industrial and urban developments, highways and railroads) have reduced the habitat available to [SCLTS] and tended to isolate populations." *Id.* at 10-11 and 26 (Table 2).

175. SCLTS habitat is located in areas within the designated flood hazard zones in Santa Cruz County on the following FIRM panels: 06087C0275E, 06087C0357E, 06087C0380E, 06087C0381E, 06087C0383E, 06087C0384E, 06087C0392E, and 06087C0411E.

176. FEMA's NFIP has incentivized and facilitated and continues to incentivize and facilitate development, including the placement of fill, the construction of buildings, roads, driveways, culverts, and revetments, which is having the adverse effects described above, including filling in wetlands and aquatic habitat or altering and fragmenting upland habitat such that they no longer have the characteristics necessary to support SCLTS.

**NFIP Adverse Impacts On California Red-Legged Frog**

177. FWS has listed the California red-legged frog as threatened. 72 Fed. Reg. 12816 (Mar. 17, 2010). The FWS has designated a number of CRLF critical habitat units in Monterey

County, at least three of which overlap with the SFHA, which are units MNT-1 (Elkhorn Slough), MNT-2 (Carmel River), and MNT-3 (Big Sur Coast). The overlaps of the SFHA and CRLF habitat are summarized in Attachment 19. A visual example of overlaps of designated critical habitat of the CLRF and the SFHA is provided through a comparison of a general map of units MNT-1, MNT-2, and MNT-3 from the Federal Register notice designating CRLF critical habitat with the effective FIRM panel for the mouth of the Carmel River (in MNT-2). (*See* Attachments 13-14).

178. The FWS has designated two CRLF critical habitat units in Santa Cruz County. One is located along the coastline of northern Santa Cruz County, plus a small area in southern San Mateo County, from approximately Green Oaks Creek to Wilder Creek. The unit includes the following watersheds: Green Oaks Creek, Waddell Creek, East Waddell Creek, Scott Creek, Big Creek, Little Creek, San Vicente Creek, Laguna Creek, Majors Creek, and Wilder Creek. 73 Fed. Reg. 53492, 53507, 53618 (Sept. 16, 2008). The other is located north of the mouth of the Pajaro River and seaward of California Highway 1. It includes locations in the Watsonville Slough system, including all or portions of Gallighan, Hanson, Harkins, Watsonville, Struve, and the West Branch of Struve sloughs. The unit includes portions of the Corralitos Lagoon and Mouth of the Pajaro River watersheds. *Id.* at 53507-08, 53618. CRLF critical habitat is located in areas within the designated flood hazard zones in Santa Cruz County on the following FIRM panels: 06087C0160E, 06087C0180E, 06087C0189E, 06087C0190E, 06087C0195E, 06087C0310E, 06087C0380E, 06087C0389E, 06087C0390E, 06087C0391E, 06087C0393E, 06087C0394E, 06087C0452E, and 06087C0456E.

179. As the FWS CRLF Recovery Plan has stated, “Current and future urbanization poses a significant threat to the California red-legged frog.” CRLF Recovery Plan at 17.<sup>8</sup> Declining populations of CRLF are attributed to many factors associated with development and urbanization, including degradation and loss of habitat, degradation of water quality, cover of non-native plants, use of pesticides, introduction of predators, impoundments, and water

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<sup>8</sup> CRLF Recovery Plan, [http://ecos.fws.gov/docs/recovery\\_plan/020528.pdf](http://ecos.fws.gov/docs/recovery_plan/020528.pdf) (May 28, 2002).

diversions. CRLF Species Information.<sup>9</sup> The fragmentation of existing habitat and colonization by nonnative species may represent the most significant threats posed by development. *Id.* Juveniles disperse from breeding sites to habitats that provide sheltering vegetation and scattered wetlands or streams, including forested areas, nonnative grasslands, croplands, and pastures. 72. Fed. Reg. 12816, 12818. They are unable to disperse through urbanized or suburban areas, suburban developments, or areas separated from breeding habitat by impassible barriers such as highways and freeways. *Id.* Passable roadways that are heavily used by vehicles also result in a high rate of mortality. *Id.*

180. Adults require dense, shrubby, or riparian vegetation associated with deep (greater than 2½ feet) still or slow moving water. CRLF Species Information. The frogs thrive when they live in deep-water pools with a dense cover of overhanging willows and surrounding cattails to protect from predators and dessication. *Id.* Well-vegetated areas within the riparian corridor may also provide sheltering habitat during the winter. *Id.* Development paves over native habitat in aquatic and riparian areas and uproots the vegetation required for the frogs to survive. *Id.* Developments that involve diversion or impoundment of water also threaten the frogs. *Id.* Impoundment and diversion of water may lead to loss of breeding sites at pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons or loss of deeper water habitat required for adults to thrive. *Id.*

181. Decreases in water quality associated with development also harm CRLF. *Id.* When eggs are exposed to salinity levels greater than 4.5 parts per thousand, 100 percent mortality occurs. CRLF Recovery Plan at 15. Larvae die when exposed to salinity levels greater than 7.0 parts per thousand. *Id.* Early embryos of the frogs are tolerant of temperatures only between 9 and 21 degrees Celsius. *Id.*

182. FEMA's NFIP has incentivized and facilitated and continues to incentivize and facilitate development, including the placement of fill, the construction of buildings, roads,

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<sup>9</sup> CRLF Species Information, [https://www.fws.gov/sacramento/ES\\_Species/Accounts/Amphibians-Reptiles/es\\_ca-red-legged-frog.htm](https://www.fws.gov/sacramento/ES_Species/Accounts/Amphibians-Reptiles/es_ca-red-legged-frog.htm) (Last updated Sept. 16, 2016).

driveways, culverts, revetments, and structures to armor river and stream banks such as retaining walls, which is having the adverse effects described above.

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#### **NFIP Adverse Impacts On Vernal Pool Fairy Shrimp**

183. Vernal pool fairy shrimp are small freshwater crustaceans that FWS has listed as threatened. 59 Fed. Reg. 48136 (Sept. 19, 1994). The FWS has designated a number of units of VPFS critical habitat within Monterey County, at least three of which overlap with the SFHA. These overlaps include Unit 28 (northeast of Kings City), Unit 29A (around Lockwood), and Unit 29B (around Bradley), all within the greater Salinas River watershed. 71 Fed. Reg. 7174, 7176. Portions of this designated critical habitat are within the SFHA, as summarized in Attachment 19. A visual example of overlaps of designated critical habitat of the VPFS and the SFHA is provided through a comparison of a map from the FWS Federal Register notice designating VPFS critical habitat that includes Unit 29A with the effective FIRM panel for part of the area of Unit 29A.<sup>10</sup> (*See* Attachments 15-16). As FWS concluded in its five-year status review of the VPFS, “the loss and modification of vernal pool habitat continues to be the primary threat to the vernal pool fairy shrimp.”<sup>11</sup> VPFS Five-Year Status Review at 35. Even where the VPFS has appropriate habitat, “loss of vernal pool habitat is expected to continue as urban boundaries expand further.” *Id.* This is expected even in protected areas, since the “urbanization of lands surrounding conserved areas results in the fragmentation of protected habitats, likely preventing dispersal of the shrimp within and between populations, as well as causing increased edge effects to pool complexes.” *Id.*

184. FEMA’s NFIP has incentivized and facilitated and continues to incentivize and facilitate development, including the placement of fill, the construction of buildings, roads, driveways, culverts, and revetments, which is having the adverse effects described above,

<sup>10</sup> On the map of the FIRM panel, Jolon Road corresponds to the black line (road) between the northwest and southeast sections of Unit 29A on the FWS map of critical habitat.

<sup>11</sup> VPFS 5-Year Review, [https://ecos.fws.gov/docs/five\\_year\\_review/doc1150.pdf](https://ecos.fws.gov/docs/five_year_review/doc1150.pdf) (Sept. 2007).

including filling in vernal pools or altering them such that they no longer have the hydrology necessary to support VPFS (as when water flows are cut off to these pools or where they are altered in such a fashion as to no longer retain water).

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#### **NFIP Adverse Impacts On Monterey Spineflower**

185. The Monterey spineflower is a low-growing herb in the buckwheat family that the FWS has listed as threatened. 59 Fed. Reg. 5499 (Feb. 4, 1994).

186. The FWS has designated as critical habitat for the plant at least two coastal units in Monterey County that likely partially overlap with the SFHA: Unit 2, Moss Landing (coastal area north and south) and Unit 3, Marina (just south of Salinas River mouth to Monterey). Two other units designated by FWS that are inland overlap with the SFHA: Unit 8, Fort Ord, and Unit 9, Soledad (area in Salinas River floodplain south of Soledad). 73 Fed. Reg. 1525, 1534-36 (Jan. 9, 2008). Portions of this designated critical habitat are within the SFHA, as summarized in Attachment 19. A visual example of overlaps of designated critical habitat of the Monterey spineflower and the SFHA is provided through a comparison of a map of Unit 9 from the FWS Federal Register notice designating Monterey spineflower critical habitat with the effective FEMA FIRM panel for the Soledad area. (*See* Attachments 17-18).

187. The FWS has designated as critical habitat for the plant at one unit in Santa Cruz County that overlaps with the SFHA: Unit 1, Sunset (coastal beaches, dunes, and bluffs locations west of Watsonville). 73 Fed. Reg. 1525, 1534 (Jan. 9, 2008). Designated Monterey spineflower critical habitat is located in areas within the designated flood hazard zones in Santa Cruz County on the following FIRM panels: 06087C0389E and 06087C0390E.

188. As FWS found in its critical habitat determinations, known occurrences of the Monterey spineflower “are threatened by direct and indirect effects from habitat fragmentation and loss and edge effects resulting from urban development.” 73 Fed. Reg. 1525, 1532. Threats to the habitat of the Monterey spineflower include, specifically: industrial and recreational development, road development, human and equestrian recreational use, and dune stabilization as a result of the introduction of non-native species. 59 Fed. Reg. 5499, 5505. Studies indicate



1 that a high diversity of pollinators resulting from exposure, proximity to the coast, and the  
2 structure, composition, and density of the surrounding vegetation are important to the survival of  
3 the Monterey spineflower. Murphy 2003b at 28–63, cited in 71 Fed. Reg. 75189, 75191 (Dec.14,  
4 2006). This is attributed to the fact that the Monterey spineflower does not develop an extensive  
5 seed bank, which means that it relies on the previous year’s seed set as opposed to a large seed  
6 bank that remains viable for decades like some other species. *Id.* Thus, development that  
7 destroys the vegetation home to pollinators is costly for the Monterey spineflower. *Id.* Even one  
8 year wherein pollination is threatened is costly for the entire species. *Id.*

9 189. In encouraging development in areas home to the Monterey spineflower and its  
10 pollinators, the NFIP has threatened and continues to threaten the persistence of the species. The  
11 placement of fill and construction of buildings, roads, driveways, culverts, and revetments paves  
12 over valuable, increasingly rare habitat home to Monterey spineflower and associated plants and  
13 animals. The health and proximity of associated plants and animals is crucial for the survival of  
14 plants such as the Monterey spineflower because they depend upon the presence of pollinators  
15 for reproduction. *Id.* There must also be little cover of other species that compete for resources  
16 available for growth and reproduction in order for the species to thrive. *Id.* Development allows  
17 invasive, non-native species to cover native species such as the Monterey spineflower. *Id.* Exotic  
18 invasions are particularly likely in habitats disturbed by human activities and have devastating  
19 effects upon the pollination and, thus, reproduction of native species. Bjerknes, *et al.*

20 190. FEMA’s NFIP has incentivized and facilitated and continues to incentivize and  
21 facilitate development, including the placement of fill, the construction of buildings, roads,  
22 driveways, culverts, and revetments, which is having the adverse effects described above,  
23 including altering habitat such that they no longer have the characteristics necessary to support  
24 Monterey spineflower.

25 **Additional Documented Effects of the NFIP on ESA-Protected Species**

26 191. The effects of the NFIP described above have been documented not only in  
27 Monterey, Santa Cruz, and Humboldt Counties, above, but also in the San Francisco Bay-San  
28 Joaquin River Delta, as well as in Oregon, Washington, Florida, Arizona, and elsewhere. For



1 example, in *Coalition for Sustainable Delta*, 812 F. Supp. 2d 1089, the court rejected FEMA's  
2 argument that its procedure of issuing Letter of Map Changes does not trigger a duty to consult,  
3 where a NMFS biological opinion stated:

4 "By its very purpose, the NFIP reduces available floodplain storage of water, in particular  
5 the slower velocity, more shallow volumes of water of the "flood fringe, which juvenile  
6 salmonids rely on for their survival. The NFIP allows floodplains to be filled with  
7 development up to the point that the 100-year or base flood is constrained to the point of  
8 increasing the elevation of that flood by one foot. By its stated terms, the NFIP functions  
9 to restrict development only when the volume of concentrated water to be conveyed is so  
10 constrained by floodplain development that the floodway is no longer sufficient for "safe"  
conveyance of floodwaters. Thus, with each successive flood event, fish within the  
flooding system will have less floodplain refugia, and more volume and velocity of water  
within the main floodway, decreasing their chances for survival, and among those that do  
survive, their fitness for future developmental stages."

11 192. Similarly, in 2008, the U.S. Court of Appeals for the Eleventh Circuit recognized  
12 FEMA's duty to consult with wildlife agencies regarding its administration of the NFIP, because  
13 of potential impacts to endangered and threatened species located in the Florida Keys. *Florida*  
14 *Key Deer*, 522 F.3d 1133. The court held that section 7 of the ESA required FEMA to develop  
15 species- and location-specific conservation programs to protect the listed species. Although  
16 FEMA has broad discretion in developing such programs, "total inaction is not allowed." 522  
17 F.3d at 1146.

18 193. In 2016 in Oregon, a NMFS Biological Opinion regarding the implementation of  
19 NFIP concluded that it was "likely to jeopardize the continued existence" of 16 ESA-listed  
20 anadromous fish species and Southern Resident killer whales, and to "destroy or adversely  
21 modify designated or proposed critical habitat" for the 16 anadromous fish species (April 14,  
22 2016, NWR-2011-3197).

23 194. The Biological Opinion for the NFIP's implementation in Puget Sound found that  
24 the action, as proposed, would be likely to jeopardize the continued existence of three salmon  
25 ESUs, and destroy or adversely modify designated critical habitat of two salmon ESUs  
26 (September 22, 2008, NWR-2006-00472).

27 195. Both the Oregon and Puget Sound biological opinions found that at a minimum,  
28 the NFIP would result in effects on endangered or threatened species.

196. FEMA's assertions that the NFIP would have no effect on endangered or listed species nationwide, which necessarily specifically includes Monterey, Santa Cruz, and Humboldt counties are erroneous. As NMFS concluded when issuing the 2014 Biological Opinion for the NFIP in Oregon:

"The NFIP, through the three described discretionary elements, leads to development in the floodplain environment. The reduction in floodplain habitat function is constant, incremental, permanent, and self-propagating. Once development occurs in an area, subsequent development follows.

FEMA proposes to implement the NFIP in Oregon consistent with FEMA's regulatory program with some modifications intended to address concerns regarding ESA-listed salmonids. However, the proposed action has several weaknesses:

- The accuracy of floodplain mapping remains problematic.
- The proposed conservation measures do not appear to be mandatory.
- The regulatory floodplain management criteria are inadequate to limit the adverse effects of floodplain development.
- The CRS program fails to require minimum credits for beneficial floodplain functions for the lower six ratings classes.
- The CRS program continues to provide credits to structural development and other floodplain management practices that are detrimental to natural floodplain functions.
- The proposed action relies on communities to meet FEMA's ESA obligation even though the duty to comply with ESA section 7 lies with FEMA not state or local governments.
- The proposed action does not include sufficient program oversight.
- The proposed action does not provide measurable performance standards or development limits.
- The proposed action provides only infrequent program monitoring.

(April 14, 2016, NWR-2011-3197 at 141).

197. The weaknesses identified in the NFIP implementation in Oregon are likewise found in the description of the nationwide implementation of the NFIP described in the BE. The documented actual, likely, and potential effects of the NFIP on threatened and endangered species and their critical habitat make FEMA's conclusion that the implementation of the NFIP will have "no effect" on endangered and threatened species, nationwide and specifically in Monterey, Santa Cruz, and Humboldt counties erroneous as a matter of law.

## FEMA VIOLATIONS OF THE ENDANGERED SPECIES ACT

### FEMA Violation of Procedural Requirements of ESA Section 7(a)(2)

198. “To determine whether the [an agency’s] no effect determination was arbitrary and capricious, [a court] must decide whether the agency ‘considered the relevant factors and articulated a rational connection between the facts found and the choice made.’” 632. F. 3d at 496 (quoting *Nat’l Ass’n of Home Builders v. Norton*, 340 F.3d 835, 841 (9th Cir. 2003) in turn quoting *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 105 (1983)). An agency’s decision is arbitrary and capricious if it “entirely failed to consider an important aspect of the problem” or “offered an explanation that runs counter to the evidence before the agency.” *The Lands Council v. McNair*, 537 F.3d 981, 987 (9th Cir. 2008) (internal citation and quotation marks omitted). Moreover, a Court must ensure that the agency has “examined the relevant data and articulated a satisfactory explanation for its action.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983). “Where the agency has failed to provide a reasoned explanation, or where the record belies the agency’s conclusion, [the court] must undo its action.” *Cnty. of Los Angeles v. Shalala*, 192 F.3d 1005, 1021, (D.C. Cir. 1999) (quoting *BellSouth Corp. v. FCC*, 162 F.3d 1215, 1222 (D.C. Cir. 1999)).

199. Considering the facts and information presented above, FEMA’s “no effect” determination in the BE on grounds that the NFIP does not influence, encourage, incentivize, or facilitate development was arbitrary, capricious, an abuse of discretion, and contrary to law.

200. The evidence before FEMA at the time it made its decision does not support the conclusion that the NFIP does not influence, incentivize, encourage, or facilitate development in the floodplains, including the floodplains in Monterey County, Santa Cruz County, and Humboldt County.

201. The BE does not assess development incentivizes, restrictions, or dynamics specific to California, nor specifically in Monterey County, Santa Cruz County, or Humboldt County.

202. The explanation offered by FEMA to reach its conclusion is belied by the evidence before FEMA at the time it reached its “no effect” determination.

203. FEMA failed to consider important aspects of the problem, including by:

1           a.           Not evaluating the impacts of its LOMC decisions on floodplains, and  
2 instead concluding it does not have to consider the impacts of its program since it will require  
3 local government agencies to require proof of ESA-compliance from anyone seeking to exclude  
4 property from the SFHA by obtaining an LOMC. FEMA cannot delegate its authority for  
5 evaluating the impacts of its minimum floodplain criteria on local government agencies.

6           b.           Failing to consider the impacts of the NFIP on encouraging development  
7 in areas of the floodplain that are not high-risk areas but are still in the floodplain and provide  
8 habitat for federally protected species.

9           c.           Failing to consider whether the community rating system, which will  
10 reduce floodplain insurance costs in communities, incentivizes or facilitates development. The  
11 evidence in the record demonstrates that less expensive development costs, including insurance  
12 costs, may make development more likely. FEMA did not consider this aspect of the problem  
13 when making the “no effect” determination in the BE. FEMA ignored or did not consider this  
14 aspect of the problem in the BE.

15           d.           Failing to consider that, due to federally mandated flood insurance,  
16 properties destroyed or damaged by flood would be rebuilt, that would otherwise not be without  
17 provision of flood insurance.

18       204.       Moreover, FEMA considered a factor that is not relevant when reaching its “no  
19 effect” determination. In particular, when discussing the potential impacts of the LOMC program  
20 on species, FEMA relied on the statement that it requires local agencies to evaluate a project at  
21 the time to ensure ESA-compliance. This is not relevant as it is FEMA’s duty to evaluate the  
22 potential impact of the LOMC program and process, which provides an avenue for development  
23 in floodplains whether or not there is subsequent action that will authorize a specific  
24 development that may also require ESA section 7 consultation.

25       205.       FEMA also failed to consider relevant factors when reaching its conclusion that  
26 the NFIP will have “no effect” on federally protected species. For example, in the BE FEMA  
27 admits that floodplain mapping (development and adoption of FIRMs) and studies will influence  
28 floodplain activities (such as development), and likewise acknowledges that its mapping and

1 studies are not precise. As a result, its maps and studies may or may not include all areas in the  
 2 floodplain, and that such uncertainty may result or fail to result in the required implementation of  
 3 minimum criteria and other mitigation measures in the process of floodplain development.  
 4 Despite acknowledging this, FEMA did not undertake any study or consider whether the inherent  
 5 uncertainty and inconsistency in its mapping activities and studies “may effect” federally  
 6 protected species. Instead, FEMA determined that there will be “no effect” because they do not  
 7 know what the impacts may be. This is not a substitute for making a determination of whether  
 8 the mapping program “may effect” Listed Species.

9 206. FEMA’s discretionary management of the NFIP nationwide, and specifically in  
 10 Monterey County, Santa Cruz County, and Humboldt County, constitutes an agency action for  
 11 purposes of ESA section 7 consultation.

12 207. Since implementation of the NFIP “may affect” designated critical habitat as  
 13 discussed above, FEMA’s implementation of the NFIP in Monterey County, Santa Cruz County,  
 14 and Humboldt County is subject to the strict substantive and procedural standards imposed by  
 15 ESA’s section 7.

## 16 **FIRST CLAIM FOR RELIEF**

### 17 **FEMA Procedural Violation of 16 U.S.C. § 1536(a)(2)**

#### 18 **Request for Declaratory Relief and Injunction to Compel FEMA** 19 **to Comply with 16 U.S.C. § 1536(a)(2)**

20 208. Plaintiffs reassert and reallege the preceding paragraphs above.

21 209. The ESA requires that federal agencies ensure that agency actions are not likely to  
 22 jeopardize the continued existence of endangered or threatened species or destroy or adversely  
 23 modify designated critical habitat, and requires an interagency consultation process to ensure that  
 24 agencies fulfill these mandates. 16 U.S.C. § 1536(a)(2).

25 210. FEMA’s “no effect” determination in the BE was arbitrary, capricious, an abuse  
 26 of discretion, and contrary to law. Accordingly, FEMA failed to initiate and complete ESA  
 27 section 7 consultation with respect to its ongoing administration of the NFIP.  
 28

211. FEMA, through its BE, has violated the procedural requirements of the ESA and its implementing regulations by its failure to initiate and complete consultation with NMFS and FWS to ensure that its ongoing administration of the NFIP, an action that may affect listed species in Monterey County, Santa Cruz County, and Humboldt County, does not jeopardize such federally protected species or destroy or adversely modify designated critical habitat.

### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs seek the following relief:

- a. Declare that FEMA acted in a manner that was arbitrary, capricious, an abuse of discretion, and contrary to law when it determined that the implementation of the NFIP has “no effect” on endangered or threatened species, including specifically the Listed Species;
- b. Vacate the Biological Evaluation;
- c. Issue an injunction requiring FEMA to comply with the ESA through completion of the ESA section 7 consultation process with NMFS and FWS regarding the NFIP, including specifically in Monterey County, Santa Cruz County, and Humboldt County;
- d. An award of attorney’s fees and costs to Plaintiffs; and,
- e. Such other and further relief as this Court deems just and proper.

Respectfully Submitted,

Dated: May 15, 2017

By: /s/ Drevet Hunt

Drevet Hunt

Counsel for Plaintiffs

### **DISCLOSURE OF NON-PARTY INTERESTED ENTITIES OR PERSONS**

Based on Plaintiffs’ knowledge to date, pursuant to Civil Local Rule 3-15, the undersigned certifies that, as of this date, other than the named parties, there is no such interest to report.

Respectfully Submitted,

Dated: May 15, 2017

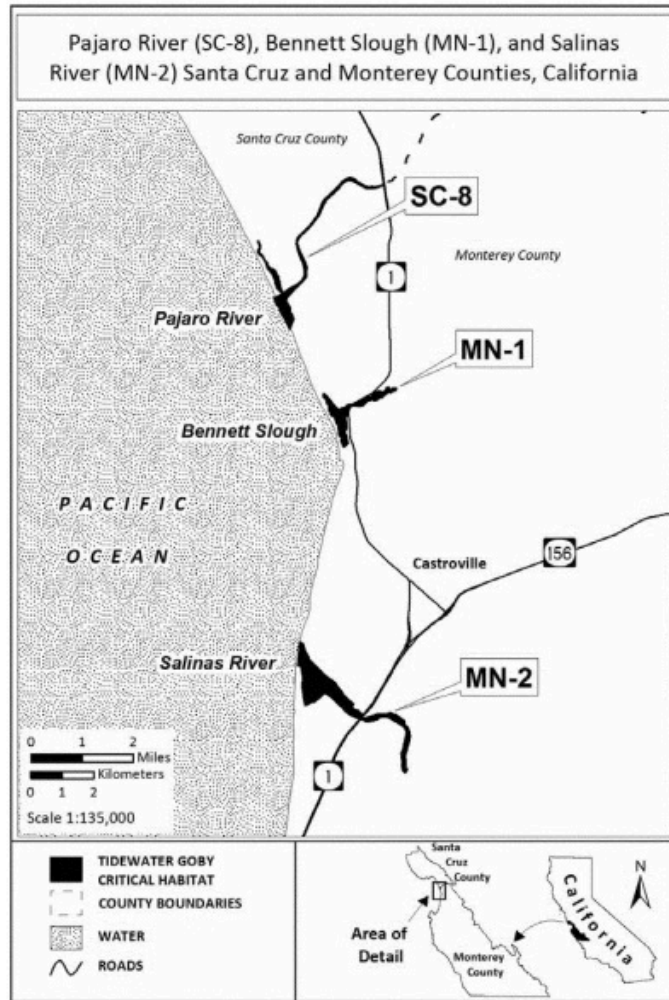
By: /s/ Drevet Hunt

Drevet Hunt  
*Counsel for Plaintiffs*

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## Attachment 1

8808 Federal Register / Vol. 78, No. 25 / Wednesday, February 6, 2013 / Rules and Regulations



(37) Unit MN 1: Bennett Slough, Monterey County, California. Map of Units SC 8, MN 1, and MN 2 is provided at paragraph (36) of this entry.

(38) Unit MN 2: Salinas River, Monterey County, California. Map of Units SC 8, MN 1, and MN 2 is provided at paragraph (36) of this entry.

(39) Unit SLO 1: Arroyo de la Cruz, San Luis Obispo County, California. Map of Unit SLO 1, SLO 2, SLO 3, SLO 4, and SLO 5 follows:

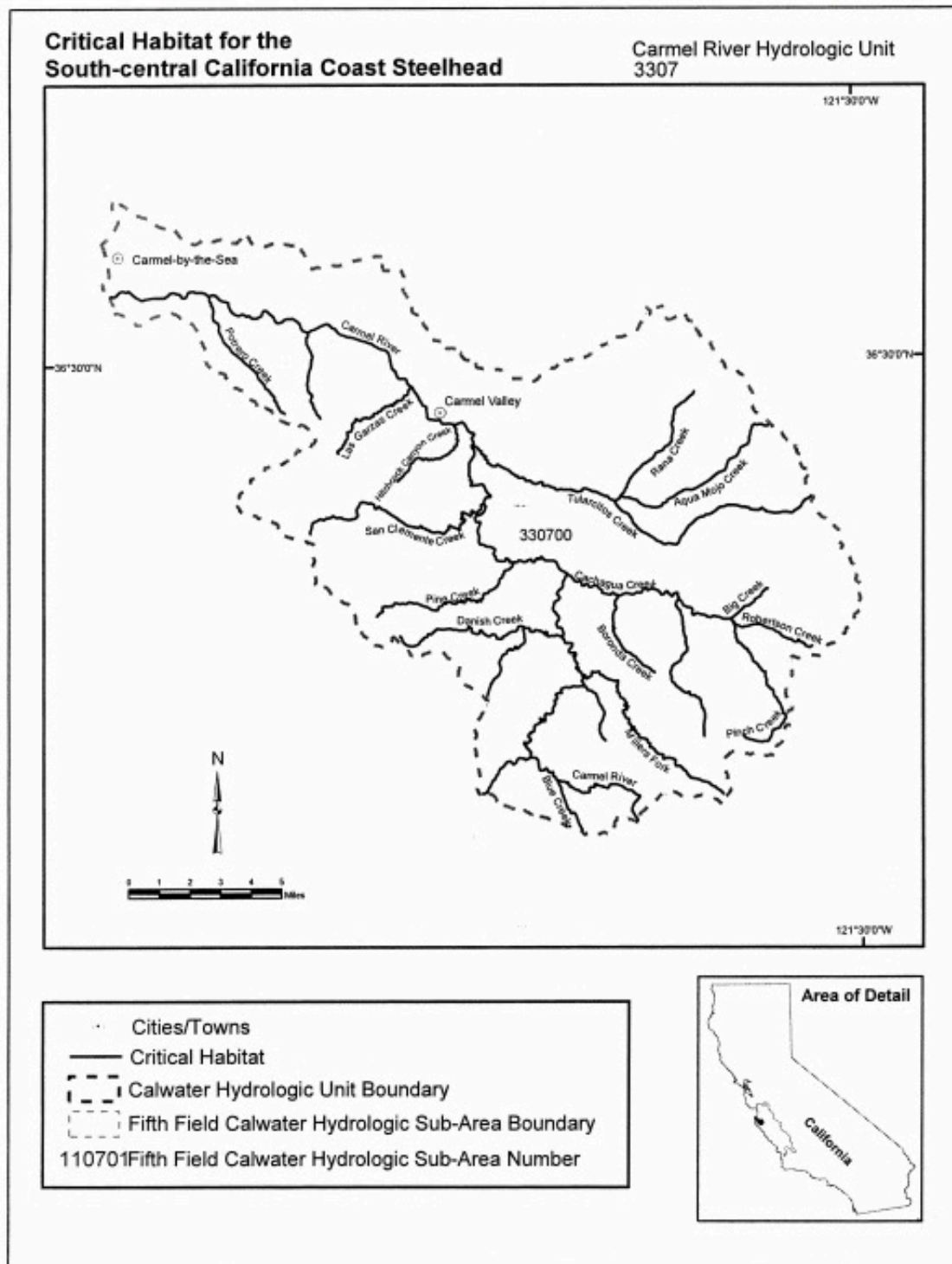




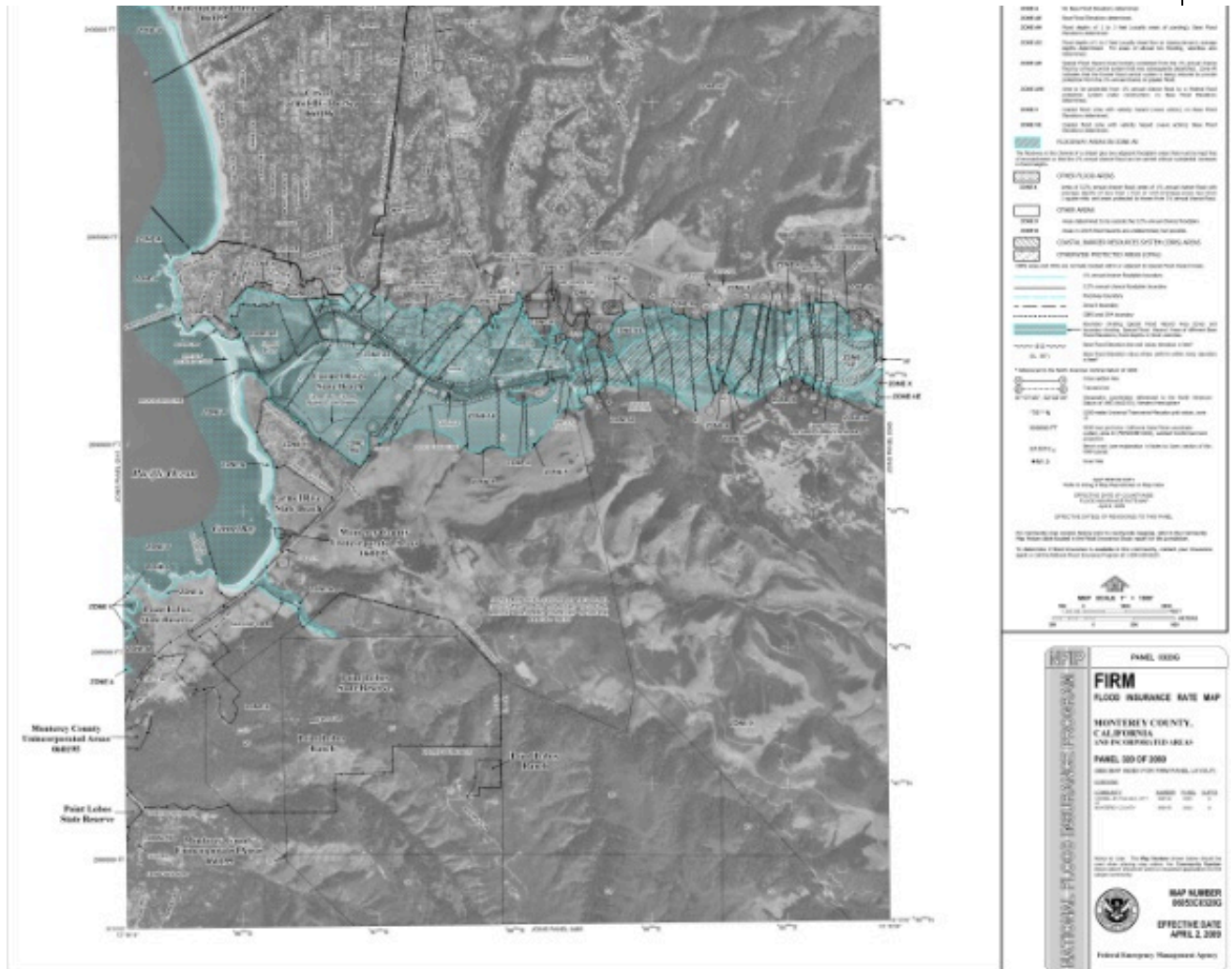
### Attachment 3

52576

Federal Register / Vol. 70, No. 170 / Friday, September 2, 2005 / Rules and Regulations



## Attachment 4



## Attachment 5

Federal Register / Vol. 77, No. 118 / Tuesday, June 19, 2012 / Rules and Regulations

36841

(54) Unit CA 20: Jetty Road to Aptos, California. Map of Units CA 20 and CA 21 follows:



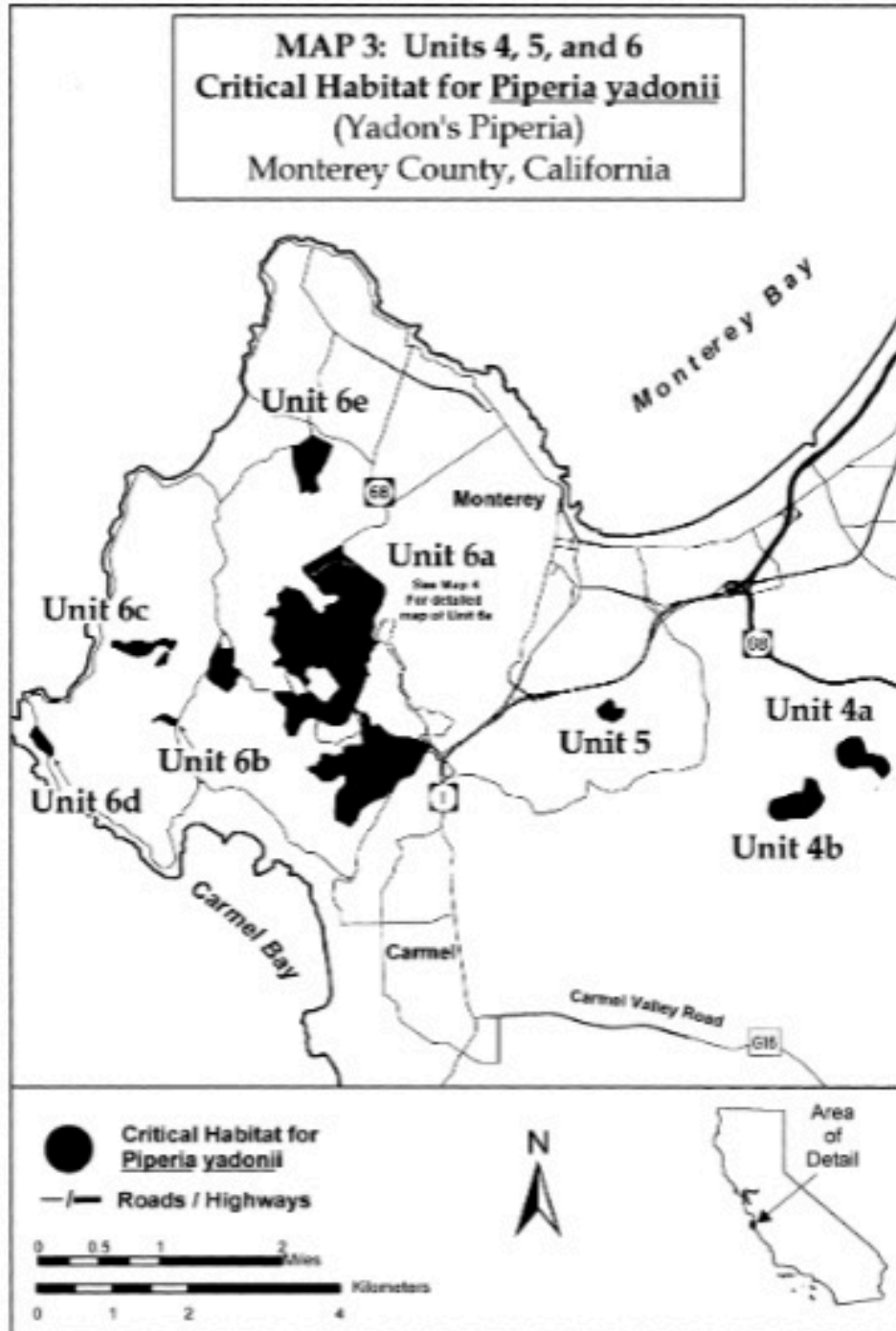
(55) Unit CA 21: Elkhorn Slough Mudflats, Monterey County, California. Map of Units CA 20 and CA 21 is provided at paragraph 54.



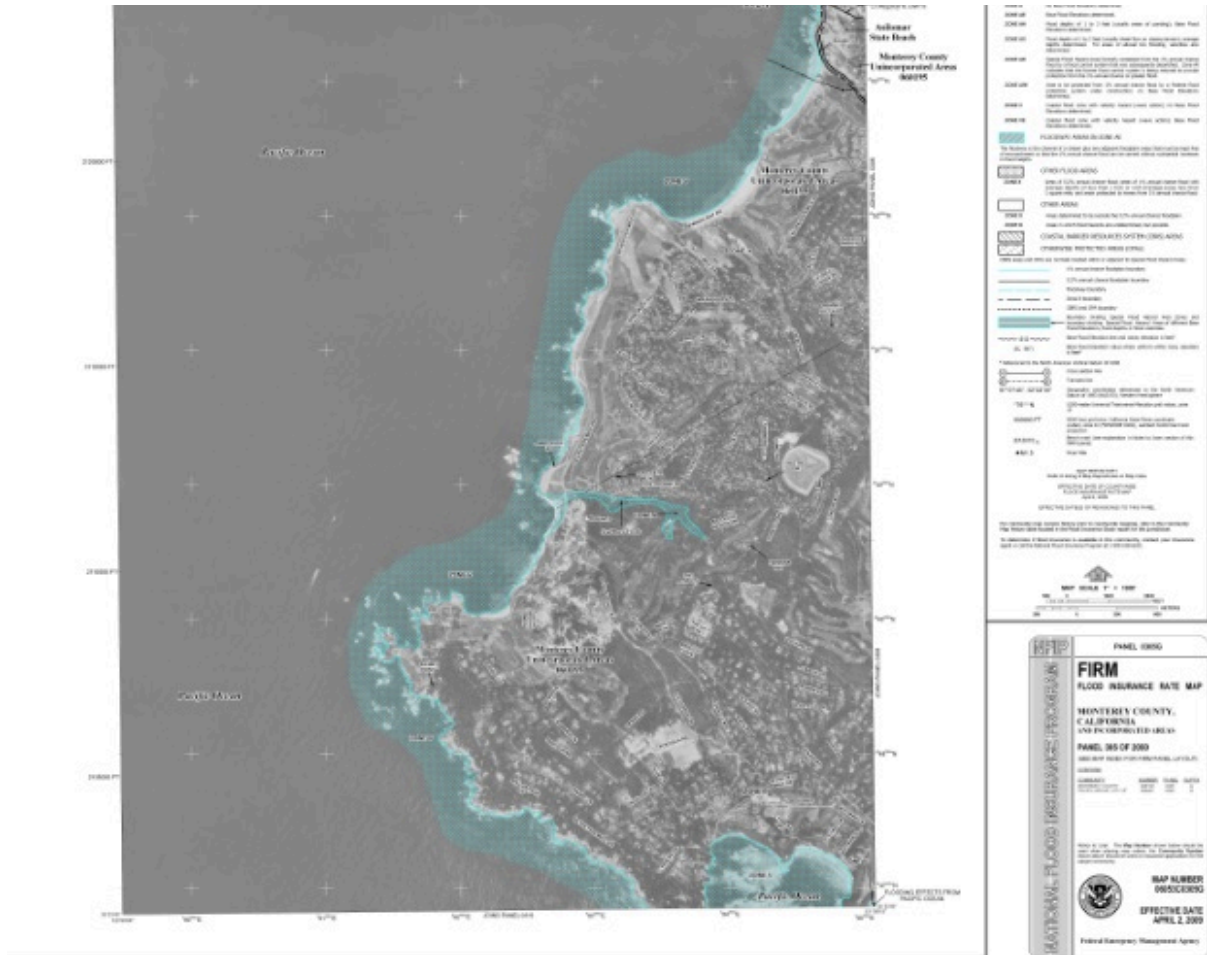


Attachment 7

60446 Federal Register / Vol. 72, No. 205 / Wednesday, October 24, 2007 / Rules and Regulations

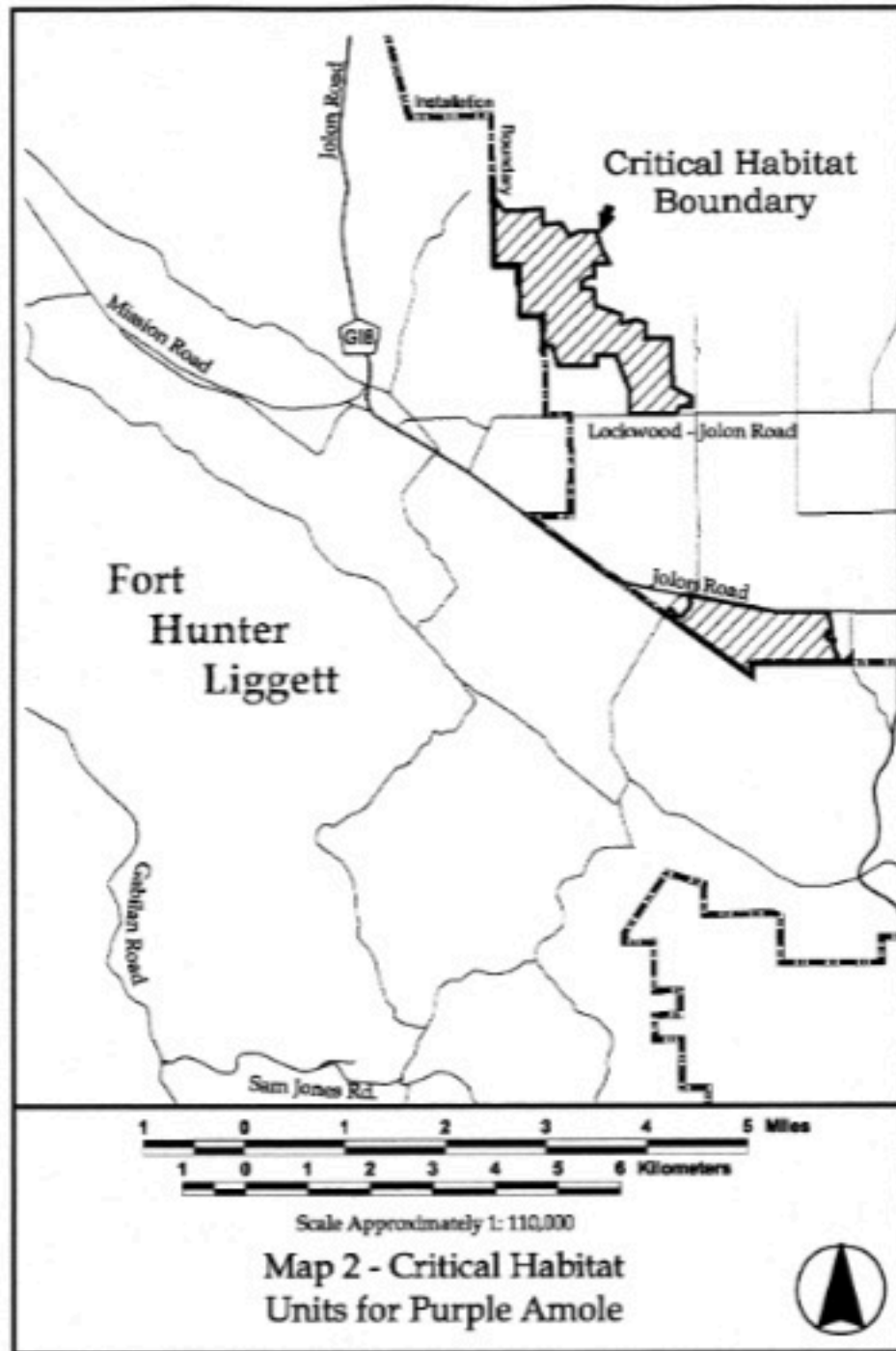


# Attachment 8



Attachment 9

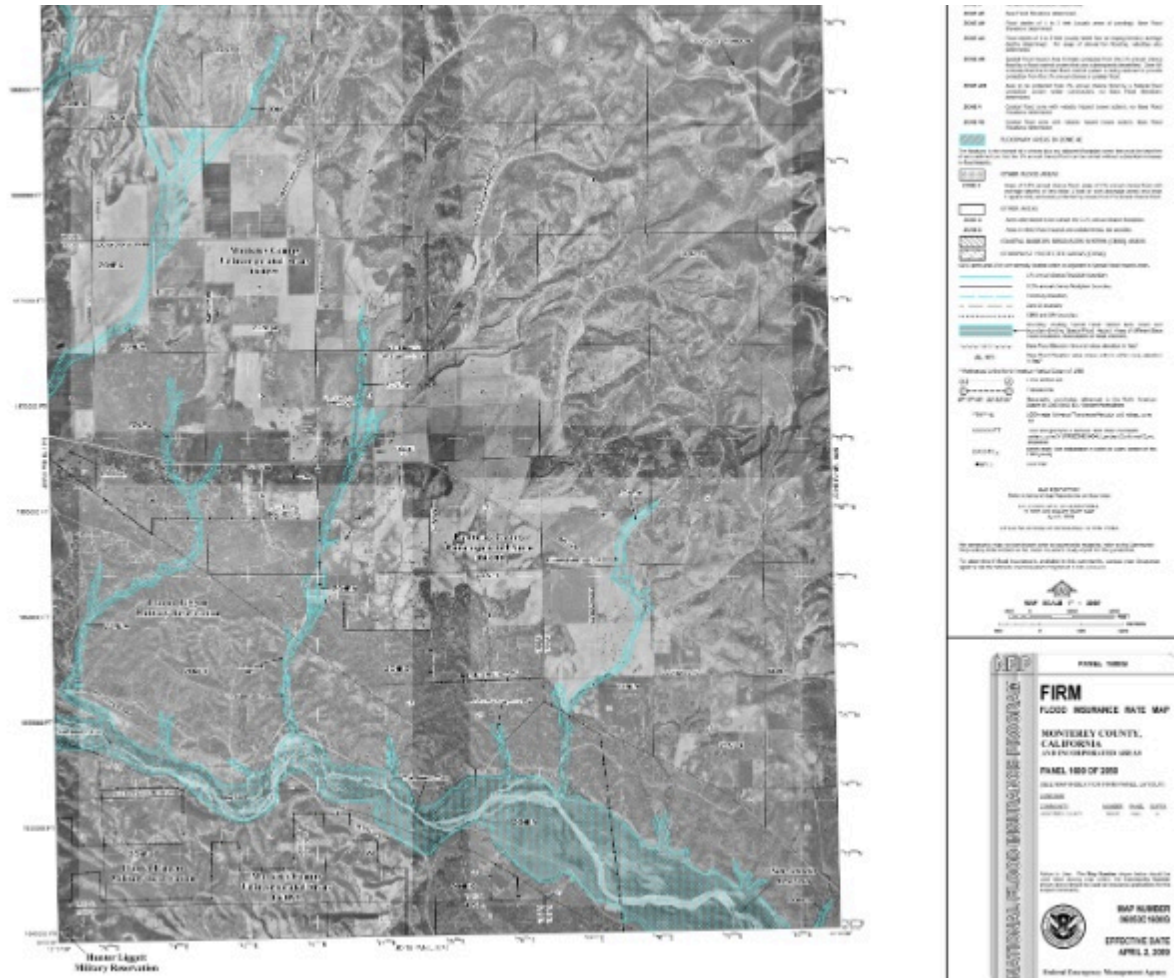
65440 Federal Register/Vol. 67, No. 206/Thursday, October 24, 2002/Rules and Regulations



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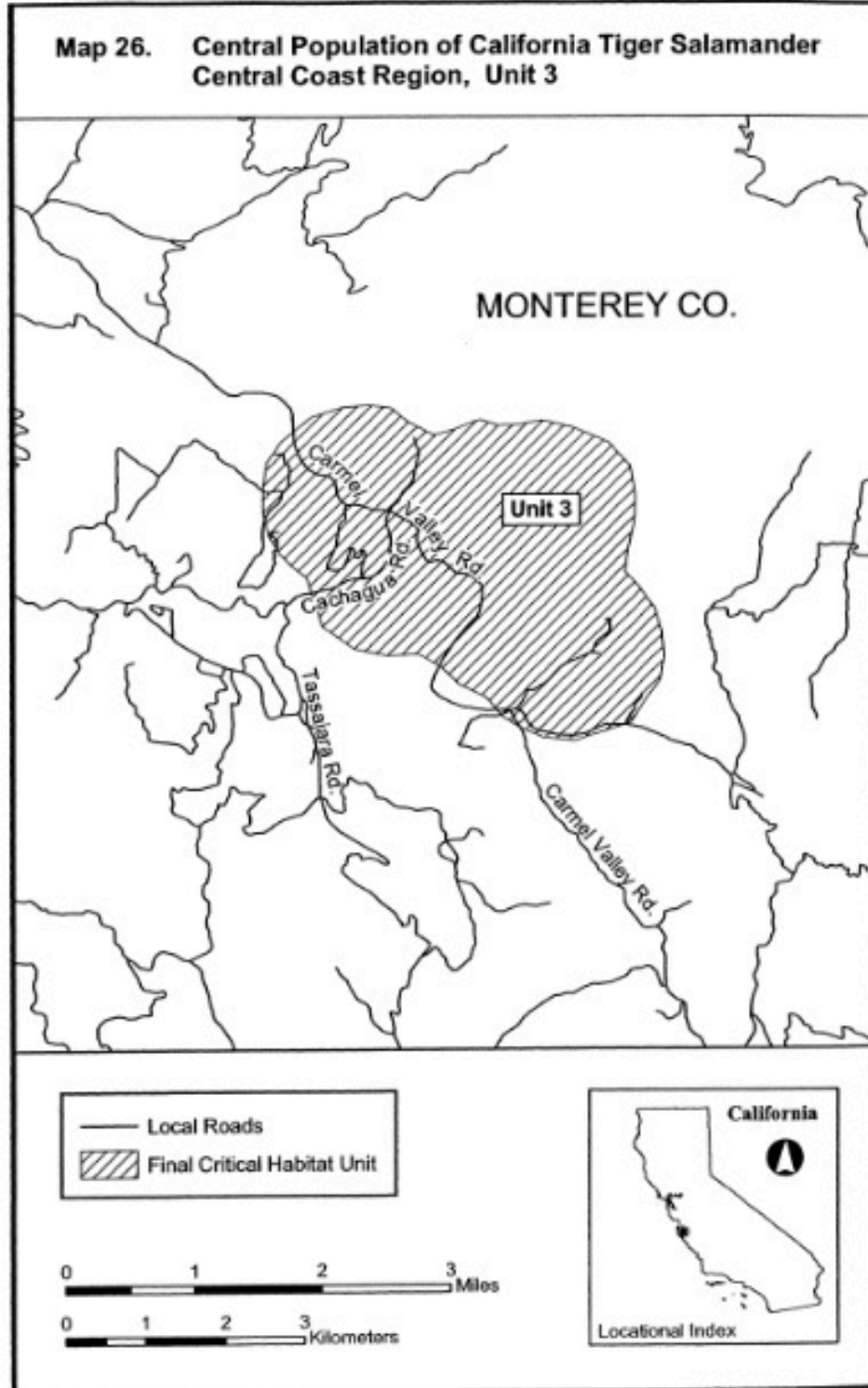
Attachment 10



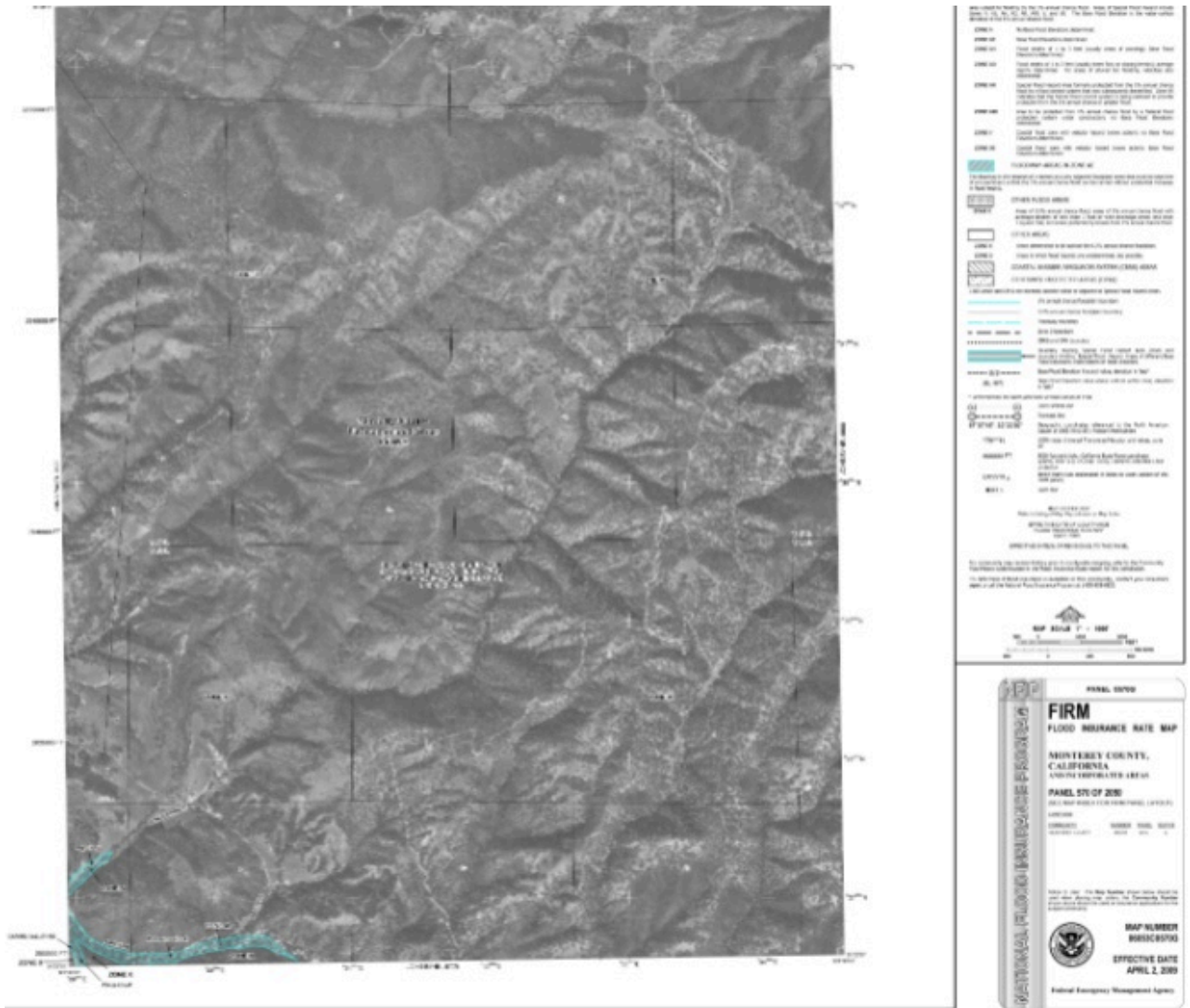
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49456

Federal Register / Vol. 70, No. 162 / Tuesday, August 23, 2005 / Rules and Regulations

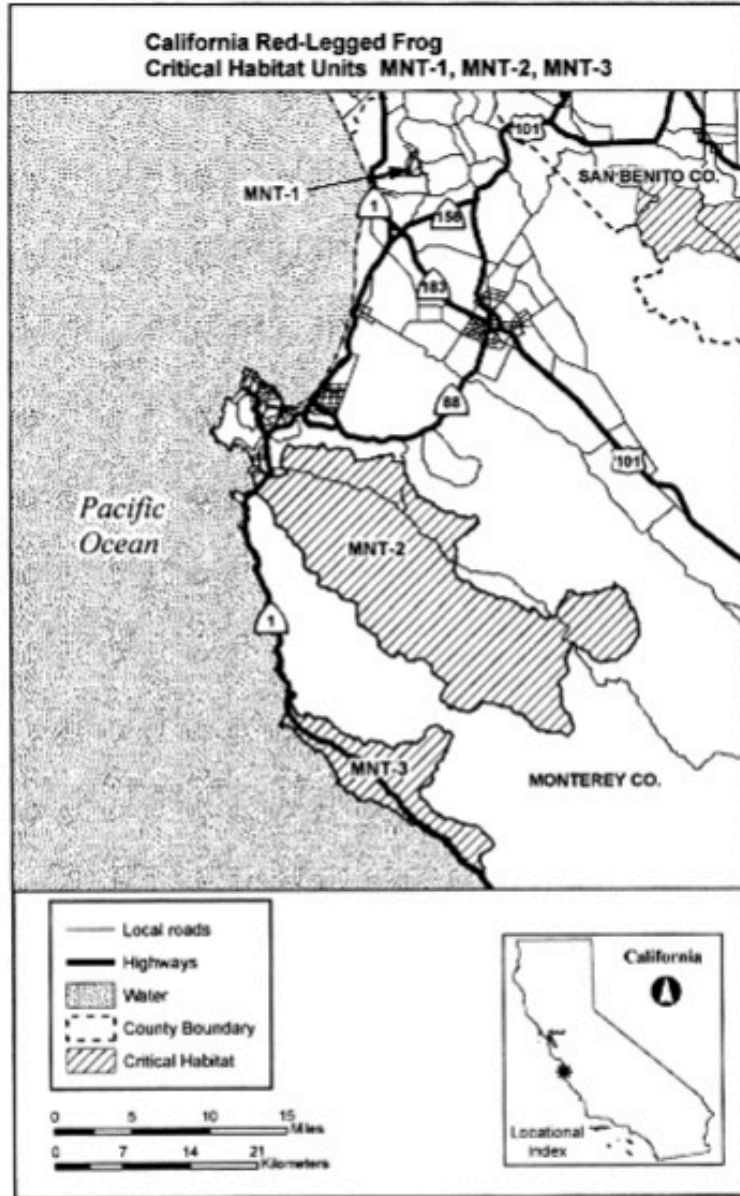


Attachment 12



Attachment 13

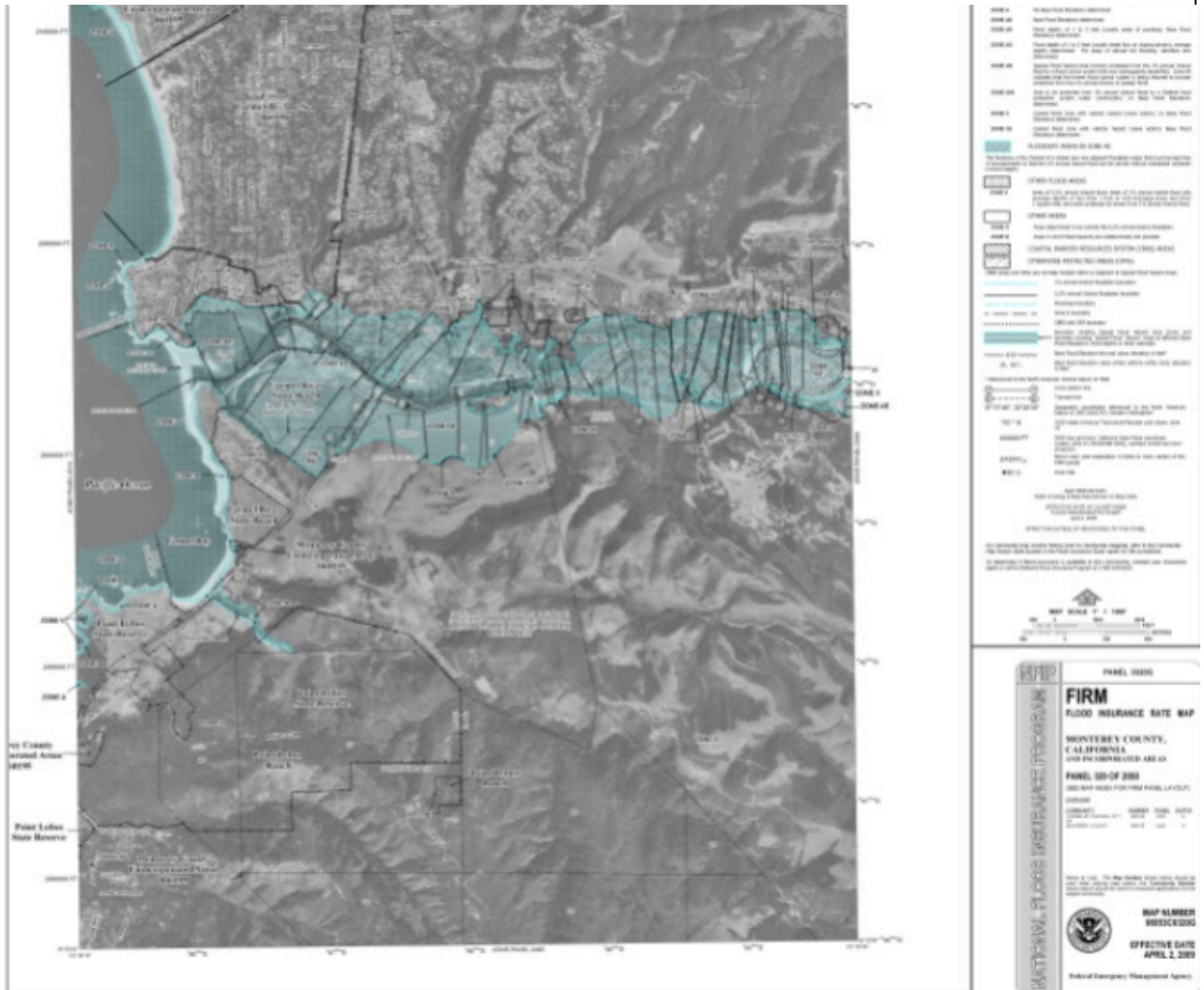
12930 Federal Register / Vol. 75, No. 51 / Wednesday, March 17, 2010 / Rules and Regulations



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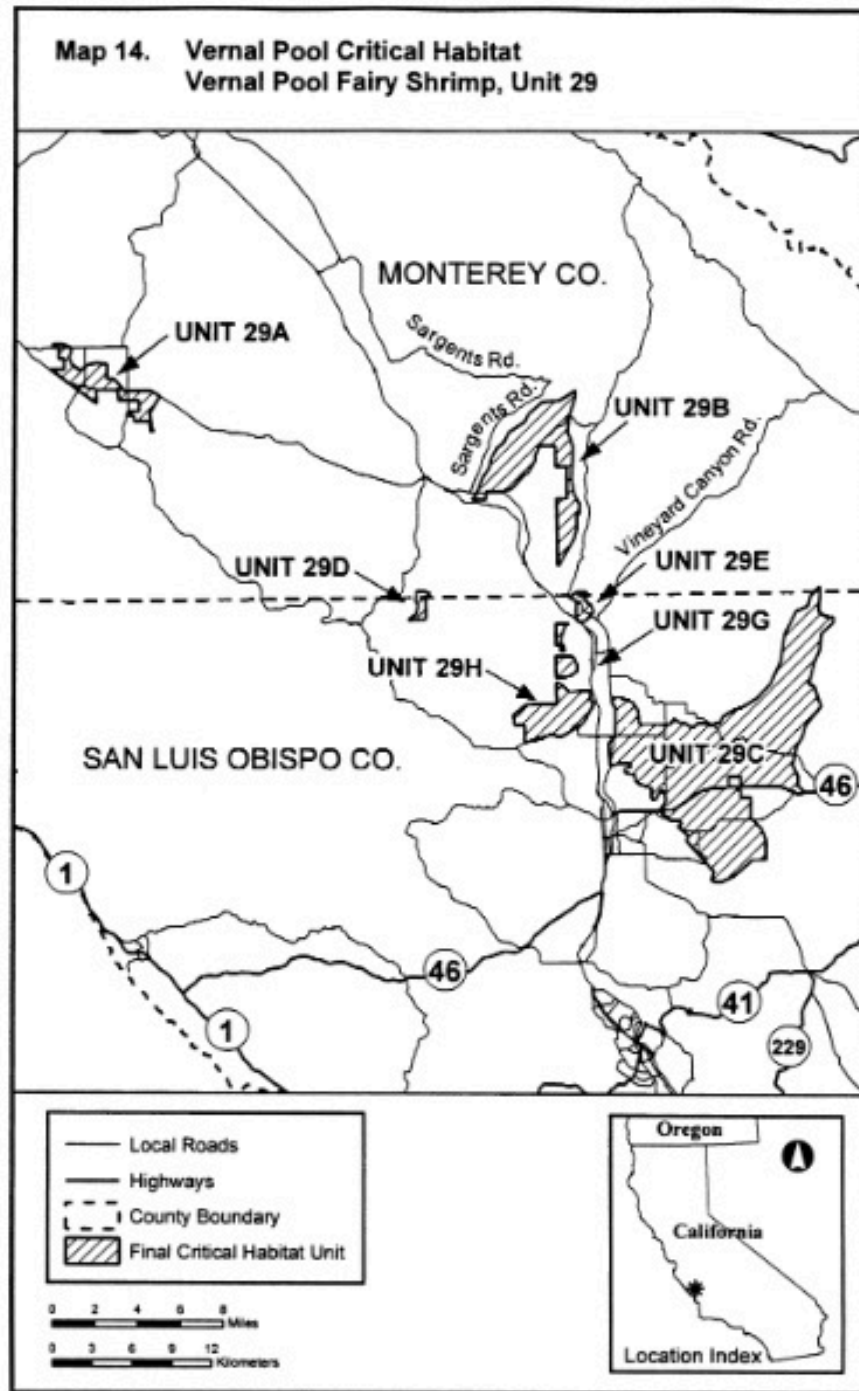
Attachment 14



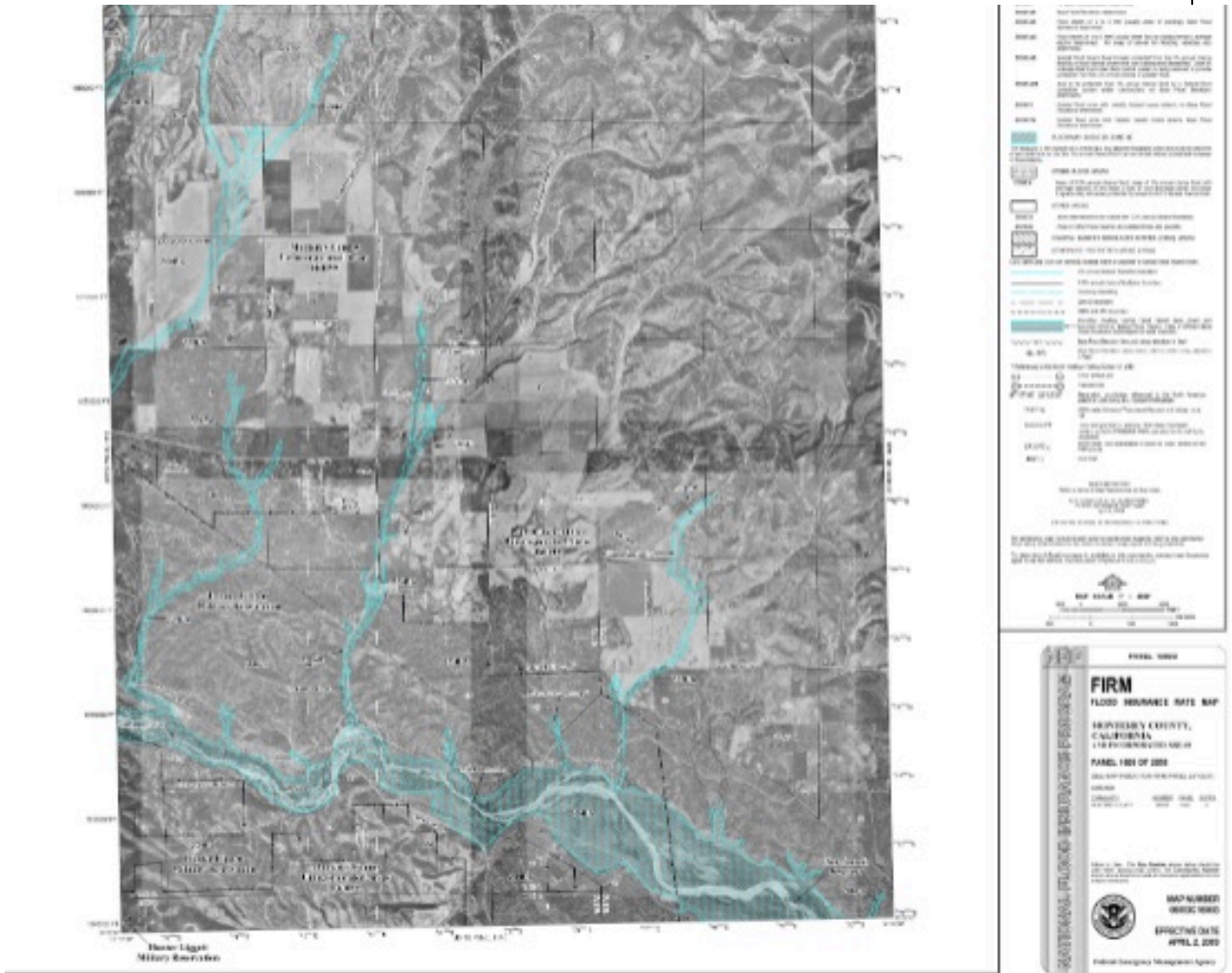
## Attachment 15

7176

Federal Register / Vol. 71, No. 28 / Friday, February 10, 2006 / Rules and Regulations



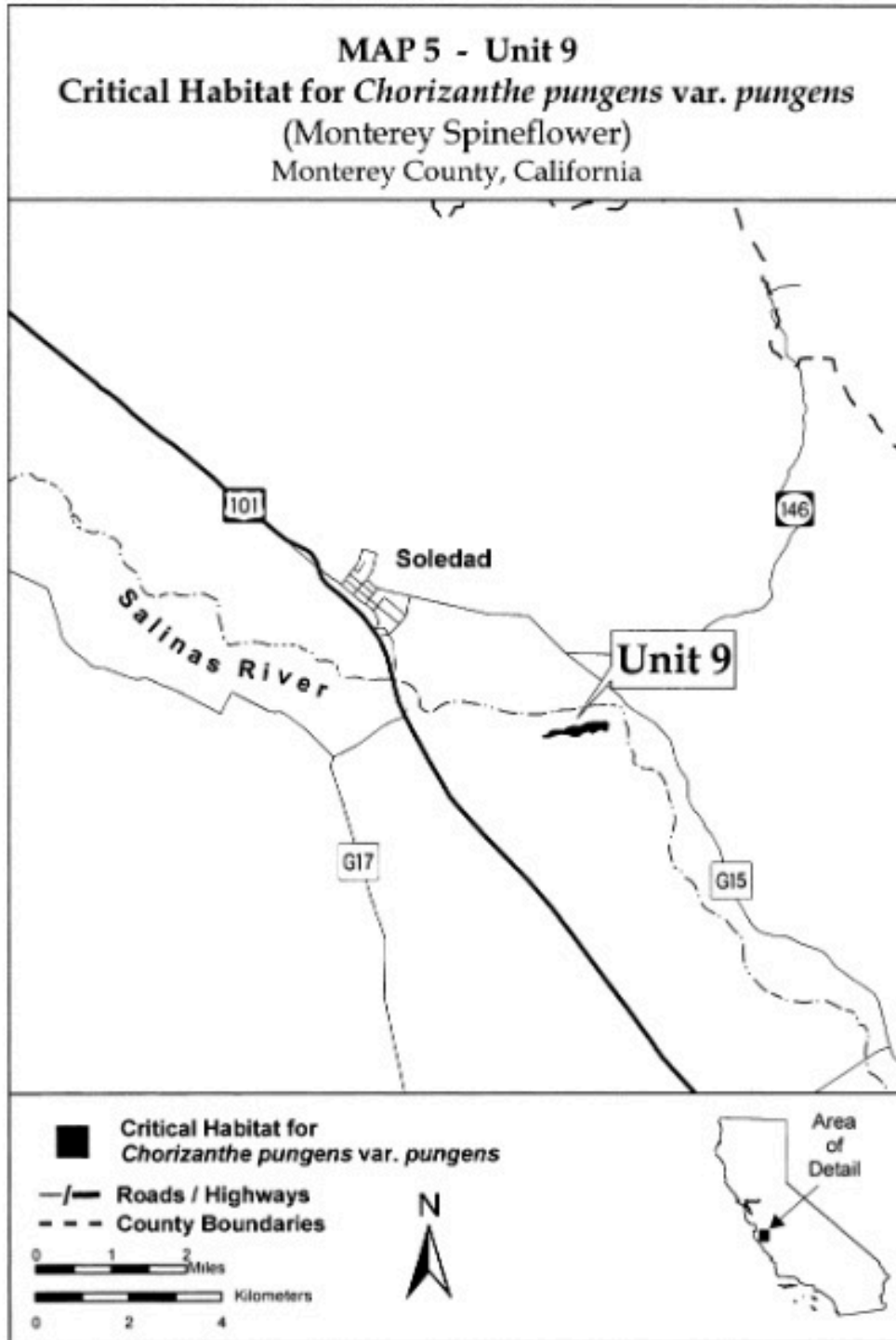
Attachment 16



## Attachment 17

Federal Register / Vol. 73, No. 6 / Wednesday, January 9, 2008 / Rules and Regulations

1553







## Attachment 19

Watershed/General Area	Sub-Unit or Tributaries	Threatened or Endangered Species with Critical Habitat in SFHA	Approximate Locations of ESA Critical Habitat Overlap With SFHA
Pajaro River	Pajaro River	Tidewater Goby	Pacific Ocean to Route 1
Pajaro River	Pajaro River	South Central CA Coast Steelhead	Pacific Ocean to San Benito County Border
Pajaro River	Pajaro River	Western Snowy Plover	Southern shore of mouth of Pajaro River
Elkhorn Slough	Bennet Slough	Tidewater Goby	North side of Elkhorn Slough
Elkhorn Slough	Shore and in Slough	Western Snowy Plover	(1) Various areas in strip along shore north of mouth of Elkhorn Slough; (2) approx. .5 sq mile area on north side of Elkhorn Slough, approx. .5 miles from Pacific Ocean.
Elkhorn Slough	Shore	Monterey Spineflower	Various areas in strip along shore north of mouth of Elkhorn Slough
Elkhorn Slough	Inner Channel/Tembladero Slough	South Central CA Coast Steelhead	Inner Channel at mouth of Elkhorn Slough
Elkhorn Slough	Elkhorn Slough	California Red-Legged Frog	Most of SFHA in Elkhorn, CA, along eastern side of Slough
Elkhorn Slough	Old Salinas River/Tembladero Slough/ Gabilan Creek watershed	South Central CA Coast Steelhead	From Pacific Ocean to upper Gabilan Creek
Elkhorn Slough to Salinas River	Shore	Western Snowy Plover	Overlap areas with SFHA on shore area from Elkhorn Slough south to Salinas River mouth
Elkhorn Slough to Salinas River	Shore	Monterey Spineflower	Overlap areas with SFHA on shore area from Elkhorn Slough south to Salinas River
Salinas River	Salinas River	South Central CA Coast Steelhead	Pacific Ocean to southern Monterey county border with San Luis Obispo county
Salinas River	Salinas River	Tidewater goby	River and SFHA from coast to approx. 3.6 miles upstream
Salinas River mouth to Monterey	Salinas River mouth to Monterey	Western Snowy Plover	Areas with SFHA on shore area from Salinas River to Monterey

<b>Watershed/General Area</b>	<b>Sub-Unit or Tributaries</b>	<b>Threatened or Endangered Species with Critical Habitat in SFHA</b>	<b>Approximate Locations of ESA Critical Habitat Overlap With SFHA</b>
Salinas River	Salinas River	Monterey Spineflower	(1) City of Marina (various locations, Fort Ord area); (2) southeast of Soledad
Salinas River	Nacimiento River	South Central CA Coast Steelhead	Salinas River to southern Monterey county border with San Luis Obispo county
Salinas River	San Antonio River	South Central CA Coast Steelhead	Salinas River to San Antonio Dam
Salinas River	Arroyo Seco	South Central CA Coast Steelhead	Salinas River to approx. .5 miles before confluence with Rocky Creek
Salinas River	Reliz Creek	South Central CA Coast Steelhead	Arroyo Seco to approx. 4.53 miles upstream.
Salinas River	Paloma Creek	South Central CA Coast Steelhead	Arroyo Seco to .4 miles after confluence with Piney Creek
Salinas River	Piney Creek	South Central CA Coast Steelhead	From Paloma Creek upstream .2 miles
Salinas River	Horse Creek	South Central CA Coast Steelhead	Arroyo Seco to approx. .13 miles upstream
Salinas River	Lhano Grande Canyon (Approx. 3.5 miles north of King City)	Vernal Pool Fairy Shrimp	SFHA in Canyon, starting approx. 1.77 N/NW of Bitterwater Rd., continuing up Canyon approx. 2.06 miles to beginning of Pinalito Canyon
Salinas River	Lewis Creek	Vernal Pool Fairy Shrimp	Flood zone, from approx. confluence with San Lorenzo Creek to approx. 12 miles upstream.
Salinas River	San Lorenzo Creek	Vernal Pool Fairy Shrimp	Flood zone, from approx. confluence with Lewis Creek to approx. 7.3 miles upstream.
Salinas River	Salinas River	Vernal Pool Fairy Shrimp	Approx. .18 sq. miles in flood zone, Bradley, CA.
Salinas River	San Antonio River Tributaries	Purple Amole	In SFHA in number of unnamed tributaries/flood zones in and around Lockwood, CA
Salinas River	San Antonio River Tributaries	Vernal Pool Fairy Shrimp	Number of unnamed tributaries/flood zones in and around Lockwood, CA
Seal Rock Creek	Seal Rock Creek	Yadon's Piperia	Overlap area starting approx. .48 miles upstream from Coast
Carmel River	Carmel River	California Red-Legged Frog	SFHA along and including Carmel River, from Pacific Ocean to approx. 1.24 miles above Los Padres Dam

<b>Watershed/General Area</b>	<b>Sub-Unit or Tributaries</b>	<b>Threatened or Endangered Species with Critical Habitat in SFHA</b>	<b>Approximate Locations of ESA Critical Habitat Overlap With SFHA</b>
Carmel River	Carmel River	South Central CA Coast Steelhead	From ocean to approx. 1.24 miles above Los Padres dam
Carmel River	Potrero Creek	California Red-Legged Frog	Creek and flood zone from Carmel River to .11 miles upstream
Carmel River	Potrero Creek	South Central CA Coast Steelhead	Creek from Carmel River to .11 miles upstream
Carmel River	Robertson Canyon Creek	California Red-Legged Frog	SFHA approx. first .03 miles of Robertson Canyon Creek
Carmel River	Robertson Canyon Creek	South Central CA Coast Steelhead	Approx. first .03 miles of Robertson Canyon Creek
Carmel River	Las Garzas Creek	South Central CA Coast Steelhead	Approx. first .87 miles of creek from Carmel River
Carmel River	Las Garzas Creek	California Red-Legged Frog	Approx. first .87 miles of creek / SFHA from Carmel River
Carmel River	Hitchcock Canyon Creek	California Red-Legged Frog	Approx. first .04 miles of creek/SFHA from Carmel River
Carmel River	Hitchcock Canyon Creek	South Central CA Coast Steelhead	Approx. first .04 miles of creek from Carmel River
Carmel River	Tularcitos Creek	South Central CA Coast Steelhead	From Carmel River until approx. 1.4 miles after confluence with Rana Creek
Carmel River	Tularcitos Creek	California Red-Legged Frog	Approx. first 1.4 miles of creek/SFHA from Carmel River
Carmel River	Rana Creek	South Central CA Coast Steelhead	Approx. first .45 miles of creek from Tularcitos Creek
Carmel River	Aqua Mojo Creek	South Central CA Coast Steelhead	Approx. first 1.55 miles of creek from Rana Creek
Carmel River	San Clemente Creek	South Central CA Coast Steelhead	Approx. first .5 miles of creek from Carmel River
Carmel River	San Clemente Creek	California Red-Legged Frog	Approx. first .5 miles of creek/SFHA from Carmel River
Carmel River	Pine Creek	California Red-Legged Frog	Approx. first .15 miles of creek/SFHA from Carmel River
Carmel River	Pine Creek	South Central CA Coast Steelhead	Approx. first .15 miles of creek from Carmel River
Carmel River	Cachagua Creek	California Red-Legged Frog	Entire length of creek/SFHA until termination Pinch Creek
Carmel River	Cachagua Creek	South Central CA Coast Steelhead	Entire length until termination Pinch Creek
Carmel River	Borondo Creek	South Central CA Coast Steelhead	Approx. first .06 miles of creek from Cachagua Creek

<b>Watershed/General Area</b>	<b>Sub-Unit or Tributaries</b>	<b>Threatened or Endangered Species with Critical Habitat in SFHA</b>	<b>Approximate Locations of ESA Critical Habitat Overlap With SFHA</b>
Carmel River	Borondo Creek	California Red-Legged Frog	Approx. first .06 miles of creek/SFHA from Cachagua Creek
Carmel River	James Creek	California Red-Legged Frog	Approx. first .09 miles of creek/SFHA from Pinch Creek
Carmel River	James Creek	South Central CA Coast Steelhead	Approx. first .09 miles of creek from Pinch Creek
Carmel River	Big Creek	South Central CA Coast Steelhead	Approx. first 1.44 miles of creek from Pinch Creek
Carmel River	Big Creek	California Red-Legged Frog	Approx. first 1.44 miles of creek/SFHA from Pinch Creek
Carmel River	Big Creek	California Tiger Salamander	Approx. first 1.44 miles of creek/SFHA from Pinch Creek
Carmel River	Pinch Creek	California Tiger Salamander	Approx. .35 mile stretch of creek /SFHA starting approx. .1 miles downstream of confluence with Big Creek until approx. .13 miles after confluence with Robertson Creek
Carmel River	Pinch Creek	California Red-Legged Frog	From confluence with Cachagua Creek to confluence with Robertson Creek, creek/SFHA
Carmel River	Pinch Creek	South Central CA Coast Steelhead	Creek from confluence with Cachagua Creek to approx..25 miles after confluence with Robertson Creek
Carmel River	Robertson Creek	California Red-Legged Frog	Approx. first 1.08 miles of creek/SFHA from confluence with Pinch Creek
Carmel River	Robertson Creek	California Tiger Salamander	Approx. first .88 miles of creek/SFHA from confluence with Pinch Creek
Carmel River	Robertson Creek	South Central CA Coast Steelhead	Approx. first 1.08 miles of creek from confluence with Pinch Creek
Big Sur	San Carpoforo Creek	South Central CA Coast Steelhead	Border of Monterey/San Luis Obispo counties, to approx. .91 miles after confluence with Dutra Creek
Big Sur	Dutra Creek	South Central CA Coast Steelhead	Approx. .35 miles after confluence with San Carpoforo Creek

<b>Watershed/General Area</b>	<b>Sub-Unit or Tributaries</b>	<b>Threatened or Endangered Species with Critical Habitat in SFHA</b>	<b>Approximate Locations of ESA Critical Habitat Overlap With SFHA</b>
Big Sur	Pfeiffer Beach	California Red-Legged Frog	(1) SFHA from Pfeiffer Beach to approx. .5 miles eastward inland; (2) strip of land along shore along Pfeiffer Beach
Big Sur	Pfeiffer Beach to far south end of Andrew Molera State Park	California Red-Legged Frog	Strip of land along shore of Pacific Ocean
Big Sur	Big Sur River	South Central CA Coast Steelhead	From Pacific Ocean to approx. 8 miles upstream
Big Sur	Big Sur River	California Red-Legged Frog	From Pacific Ocean to approx. 8 miles upstream, river/SFHA
Big Sur	Point Sur	California Red-Legged Frog	(1) Various areas from Point Sur south approx. 1.2 miles; (2) Small area along shore approx. .5 miles north of Point Sur
Big Sur	Point Sur	Western Snowy Plover	Small area along shore approx. .5 miles north of Point Sur
Big Sur	Little Sur River	South Central CA Coast Steelhead	From Pacific Ocean to approx. 1.27 miles upstream
Big Sur	Bixby Creek	South Central CA Coast Steelhead	From Pacific Ocean to approx. .2 miles inland
Big Sur	Malpasos Creek	South Central CA Coast Steelhead	From Pacific Ocean to Highway 1
Big Sur	San Jose Creek	South Central CA Coast Steelhead	From Pacific Ocean to approx. .5 miles inland
Big Sur	San Jose Creek	California Red-Legged Frog	Creek / SFHA from Pacific Ocean to approx. .5 miles inland



## Attachment 20

<b>HABITAT LOCATION</b>	<b>IMPACTED SPECIES</b>
Amaya Creek	CCC Steelhead
Anderson's Pond	Santa Cruz Long-toed Salamander
Ano Nuevo Creek	Marbled Murrelet
Aptos Creek	Tidewater Goby, CCC Steelhead
Arana Gulch Creek	CCC Steelhead
Baldwin Creek	CCC Steelhead, CCC Coho, Tidewater Goby
Bates Creek	CCC Steelhead
Beach from Jetty Road to Aptos	Western Snowy Plover
Beach west of Watsonville and north of Pajaro River	Monterey Spineflower
Bean Creek	CCC Steelhead, CCC Coho
Bear Creek	CCC Steelhead, CCC Coho
Bear Gulch	CCC Steelhead, CCC Coho
Bettencourt Creek	CCC Steelhead, CCC Coho
Big Creek	California Red-legged Frog
Boulder Creek	Marbled Murrelet (0095), CCC Steelhead, CCC Coho
Bracken Brae Creek	CCC Steelhead
Branciforte Creek	CCC Steelhead, CCC Coho
Bridge Creek	CCC Steelhead
Browns Creek	SCCC Steelhead
Buena Vista Pond	Santa Cruz Long-toed Salamander
Calabasas Pond	Santa Cruz Long-toed Salamander
Carbonera Creek	CCC Steelhead, CCC Coho
Casserly Creek	SCCC Steelhead
Central Branch Arana Gulch Creek	CCC Steelhead
Corcoran Lagoon	Tidewater Goby
Corralitos Lagoon (Freedom Lake)	Santa Cruz Long-toed Salamander, California Red-legged Frog
Corralitos Creek	Santa Cruz Long-toed Salamander, SCCC Steelhead
Crystal Creek	CCC Steelhead, CCC Coho
Davenport Landing Creek	CCC Steelhead, CCC Coho
Deer Creek	CCC Steelhead, CCC Coho
East Fork Liddell Creek	CCC Steelhead, CCC Coho
East Waddell Creek	California Red-legged Frog, CCC Steelhead, CCC Coho
Ellicott Pond	Santa Cruz Long-toed Salamander
Fall Creek	CCC Steelhead, CCC Coho
Gazos Creek	CCC Steelhead, CCC Coho
Gold Gulch Creek	CCC Steelhead, CCC Coho
Granite Creek	CCC Steelhead, CCC Coho

<b>HABITAT LOCATION</b>	<b>IMPACTED SPECIES</b>
Green Oaks Creek	California Red-legged Frog
Green Valley Creek	SCCC Steelhead
Green's Pond	Santa Cruz Long-toed Salamander
Hare Creek	Marbled Murrelet (0095), CCC Steelhead, CCC Coho
Henry Creek	CCC Steelhead, CCC Coho
Hester Creek	CCC Steelhead
Hinckley Creek	CCC Steelhead
Jameson Creek	CCC Steelhead, CCC Coho
Kings Creek	CCC Steelhead, CCC Coho
Laguna Creek	California Red-legged Frog, Tidewater Goby
Liddell Creek	CCC Steelhead, CCC Coho
Little Creek	California Red-legged Frog, CCC Steelhead, CCC Coho
Lompico Creek	CCC Steelhead, CCC Coho
Mackenzie Creek	CCC Steelhead, CCC Coho
Majors Creek	California Red-legged Frog, CCC Steelhead, CCC Coho
Merk Road Pond	Santa Cruz Long-toed Salamander
Middle Fork East Fork Liddell Creek	CCC Steelhead, CCC Coho
Mill Creek	Marbled Murrelet, CCC Steelhead, CCC Coho
Molino Creek	CCC Steelhead, CCC Coho
Moore Creek	Tidewater Goby, CCC Coho
Moore's Gulch	CCC Steelhead
Mountain Charlie Creek	CCC Steelhead, CCC Coho
Newell Creek	CCC Steelhead, CCC Coho
Old Womans Creek	CCC Steelhead, CCC Coho
Pajaro River	California Red-legged Frog, Tidewater Goby, SCCC Steelhead
Peasley Gulch	CCC Steelhead, CCC Coho
Queseria Creek	CCC Steelhead, CCC Coho
Rancho Road Pond	Santa Cruz Long-toed Salamander
Salsipuedes Creek	SCCC Steelhead
San Lorenzo River	CCC Steelhead, CCC Coho
San Vicente Creek	California Red-legged Frog, CCC Steelhead, CCC Coho
Scott Creek	California Red-legged Frog, Tidewater Goby, Marbled Murrelet (180, 160), CCC Steelhead, CCC Coho
Scott Creek Beach	Western Snowy Plover
Seascape Pond	Santa Cruz Long-toed Salamander
Soquel Creek	CCC Steelhead
Two Bar Creek	CCC Steelhead, CCC Coho
Valencia Creek	CCC Steelhead



<b>HABITAT LOCATION</b>	<b>IMPACTED SPECIES</b>
Valencia Lagoon	Santa Cruz Long-toed Salamander
Waddell Creek	California Red-legged Frog, Tidewater Goby, Marbled Murrelet, CCC Steelhead, CCC Coho
Waddell Creek Beach	Western Snowy Plover
Watsonville Slough (including all or portions of Gallighan, Hanson, Harkins, Watsonville, Struve, and the West Branch of Struve sloughs)	California Red-legged Frog
West Branch Soquel Creek	CCC Steelhead
West Branch Waddell Creek	CCC Steelhead, CCC Coho
West Fork Liddell Creek	CCC Steelhead, CCC Coho
Whitehouse Creek	CCC Steelhead, CCC Coho
Wilder Creek	CCC Steelhead, CCC Coho
Wilder Creek Beach	Western Snowy Plover
Zayante Creek	CCC Steelhead, CCC Coho